



KENT COUNTY COUNCIL.

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**Annual Report**

OF THE

**MEDICAL OFFICER OF HEALTH**

**For the Year 1921,**

BY

**ALFRED GREENWOOD, M.D., B.Sc., D.P.H.,**

**BARRISTER-AT-LAW,**

*County Medical Officer of Health.*

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**Maidstone :**

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**1922.**

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DEPARTMENT OF THE COUNTY MEDICAL OFFICER,  
SESSIONS HOUSE,  
MAIDSTONE,

August 22nd, 1922.

To the Chairman and Members of the Kent County Council.

MY LORDS, MADAM AND GENTLEMEN,

In accordance with General Order No. 55,475 of the Local Government Board, I beg to submit herewith my tenth Annual Report on the Public Health and Sanitary Condition of the County of Kent for the year ended December 31st, 1921, including a statement of the work carried out in connection with the Tuberculosis Organisation of the County.

I have endeavoured to reduce the size of the report to minimum requirements, whilst retaining statistical information as in previous years, and noting matters of importance as elicited by the county schedules.

I desire to express my appreciation and thanks to the district medical officers of health, who have invariably given me every possible assistance in the execution of my duties, and to state that all the members of my staff have again carried out their duties in a highly creditable manner.

I am, my Lords, Madam and Gentlemen,

Yours obediently,

ALFRED GREENWOOD.



## KENT COUNTY COUNCIL.

### PUBLIC HEALTH COMMITTEE.

This Committee reports to the County Council on all matters concerning the Public Health. Its constitution for 1922 is as follows :—

ALEXANDER, SIR S. R., M.D.	IGGLESDEN, C.
AMES, W.	LENNARD, Sir H. A. H. F., BART.
ARNOLD, G.	LINDLEY-JONES, W.
BARKER, W. COBBETT	MARSHAM, GEORGE
BILLINGHURST, E. A.	MUMFORD, C. E.
CANNON, T. N.	NORMAN, A. C.
CHALMERS, KENNETH E.	PAYNE, F. WALTER (Chairman of Committee)
CHILD, SIR COLES, BART.	PENFOLD, COL. SIR S.
COLLET, SIR MARK E., BART.	PILLMAN, J. C.
CORNWALLIS, COL. F. S. W., C.B.E. (Chairman of the County Council)	RUSSELL, J.
DARNLEY, THE RIGHT HON. THE EARL OF	SACKVILLE, THE RIGHT HON. LORD (Vice- Chairman of the County Council)
EWING, G. B.	SHEA, S.
GEARY, SIR W. N. M., BART.	SMITH, S. LEE
GOWER, SIR R. VAUGHAN, O.B.E.	TUFF, C., JUN.
HARDY, THE RIGHT HON. LAURENCE	WALKER, A. B.
HARRIS, THE RIGHT HON. LORD, G.C.S.I., G.C.I.E., C.B.	WILFORD, JOSHUA
HICKIN, REV. CANON H. A.	
HUSSEY, E. W. (Chairman of the Finance Committee)	

The Public Health Committee, as above, with the following additional members, constitutes the Maternity and Child Welfare Committee :—

THE HON. MRS. HARDCASTLE, of All Saints' Vicarage, Maidstone  
 MRS. HATFEILD, of Hartsdown, Margate  
 MISS PICKERSGILL-CUNLIFFE, of 135, Lambeth Road, S.E. 1.

The following members are nominated by the Kent Insurance Committee to serve on the Public Health Committee when matters dealing with the treatment of tuberculosis are under consideration :—

MRS. WIMHURST, of Cleeve House, Bexley Heath.  
 F. F. WEBB, of 43, Bower Mount Road, Maidstone.  
 J. A. WHYTE, of 27, King Edward Road, Maidstone.



# LOCAL AUTHORITIES.

5

## BOROUGHES AND URBAN.

Urban and Borough Councils.	Clerks. (1922.)	Medical Officers of Health. (1922.)	Public Health Staff.		†Date of Receipt of Annual Summary or Report.	
			Sani- tary Inspec- tors.	Clerical		
Ashford U..	J. Creery ..	*D. MacDougall ..	1	—	May	9th
Beckenham U	F. W. Gedney ..	*J. M. Clements ..	1	3	June	10th
Bexley U ..	T. G. Baynes ..	T. W. Hinds ..	2	1	June	29th
Broadstairs U	L. A. Skinner ..	*A. M. Watts ..	1†	—	May	22nd
Bromley B	F. H. Norman ..	*W. Stewart Stalker ..	2	1	April	7th
Chatham B	E. B. Lee ..	*J. Holroyde ..	3 (1†)	2	April	29th
Cheriton U	A. Atkinson ..	*D. MacDougall ..	1	1	May	24th
Chislehurst U	J. J. Brown ..	*J. S. Tew ..	2	—	March	15th
Crayford U	L. B. Burslem ..	C. M. Ockwell ..	1	—	June	17th
Dartford U	J. J. Hurtley ..	T. Farthing (Acting) ..	1†	1	May	20th
Deal B ..	D. A. Daniels ..	F. M. S. Hulke..	1†	1	June	10th
Dover B ..	R. E. Knocker ..	*A. B. McMaster ..	4 (2†)	3	July	28th
Erith U ..	J. Atkinson ..	*A. E. Jerman ..	2†	2	March	29th
Faversham B	Guy Tassell ..	C. J. Evers ..	1†	—	June	10th
Folkestone B	A. F. Kidson ..	*M. G. Yunge Bateman ..	2†	2	April	10th
Gillingham B	F. C. Boucher ..	*E. C. Warren ..	3†	1	May	5th
Gravesend B	H. H. Brown ..	*C. D. Outred ..	3 (1†)	1	May	4th
Herne Bay U	G. H. Beetenson ..	*A. M. Watts ..	1	—	May	17th
Hythe B ..	B. C. Drake ..	*D. MacDougall ..	1	—	May	24th
Lydd B ..	G. G. H. Witchell ..	M. B. S. Button ..	1	—	March	28th
Maidstone B	S. Lance Monckton	C. Pye Oliver ..	2 (1†)	1	May	2nd
Margate B	E. Brooke ..	*R. McCombe ..	3 (2†)	1	April	15th
Milton Regis U	J. Dixon, jun. ..	*A. J. Wernet ..	1	1	April	3rd
New Romney B	W. Lamacraft ..	A. McMillan ..	1	—	June	2nd
Northfleet U	C. E. Hatten ..	H. T. Sells ..	1†	—	March	9th
Penge U ..	A. J. Elson ..	R. Wilkinson ..	2 (1†)	1	April	25th
Queenborough B	E. C. Harris ..	*W. C. D. Hills ..	1	—	April	3rd
Ramsgate B	A. Blasdale Clarke	*W. J. Bannister ..	2 (1†)	1	April	1st
Rochester City	A. Kennette ..	*S. J. Pritchett ..	3 (1†)	1	May	11th
Sandgate U	H. Stainer ..	J. C. O. Bradbury ..	2	—	March	29th
Sandwich B	E. C. Byrne ..	J. W. Harrison ..	1	—	March	21st
Sevenoaks U	G. T. Bradbury ..	*J. S. Tew ..	1†	—	March	9th
Sheerness U	V. H. Stallon ..	*W. C. D. Hills ..	1†	—	April	3rd
Sidcup U	F. Booth ..	*J. S. Tew ..	1	—	March	14th
Sittingbourne U	G. H. Potter ..	*A. J. Wernet ..	1†	1	April	3rd
Southborough U	P. Hanmer ..	*J. S. Tew ..	1	—	March	14th
Tenterden B	H. B. Mace ..	*J. S. Tew ..	1	—	March	15th
Tonbridge U	H. W. Peach ..	*J. S. Tew ..	1	—	March	15th
Tunbridge Wells B	W. C. Cripps ..	*F. C. Linton ..	2	1	March	17th
Walmer U..	F. W. Hardman ..	F. M. Hughes ..	1†	—	March	29th
Whitstable U	J. F. Whichcord ..	F. P. Piper ..	1†	—	March	28th
Wrotham U	H. E. Pyle..	E. H. Walker ..	1	1	March	13th

## RURAL.

Ashford, East	J. Kingsford ..	*D. MacDougall ..	1	—	May	24th
Ashford West	J. M. Poncia ..	*D. MacDougall ..	1	—	May	24th
Blean ..	W. T. Brooks ..	*A. M. Watts ..	1	—	May	19th
Bridge ..	T. L. Collard ..	*J. J. Day ..	1†	—	March	23rd
Bromley ..	E. Haslehurst ..	*J. S. Tew ..	2	—	March	9th
Cranbrook	Eric Clarke ..	*J. S. Tew ..	1	—	June	21st
Dartford ..	E. J. Hobbs ..	*S. Richmond ..	3	—	June	19th
Dover ..	C. Dacre Carder	*J. J. Day ..	1	—	March	25th
Eastry ..	F. A. Cloke ..	*J. J. Day ..	2	—	March	23rd
Elham ..	B. C. Drake ..	*D. MacDougall ..	1	—	May	24th
Faversham	Guy Tassell ..	P. G. Selby ..	1†	—	March	28th
Hollingbourn	F. Miskin ..	G. M. Tuke ..	1	—	May	23rd
Hoo ..	R. P. Smyth ..	C. Flood ..	1	—	May	16th
Maidstone..	F. Post ..	*J. S. Tew ..	1†	—	March	13th
Malling ..	F. J. Allison ..	A. H. Roberts ..	1	—	May	11th
Milton ..	E. C. Harris ..	*A. J. Wernet ..	1†	1	April	3rd
Romney Marsh	W. Lamacraft ..	A. McMillan ..	1	—	June	2nd
Sevenoaks..	F. H. Vibert ..	*J. S. Tew ..	2 (1†)	—	March	16th
Sheppey ..	H. T. Copland ..	T. R. Wigglesworth	1	—	May	23rd
Strood ..	J. E. Povey ..	C. Flood..	1	—	April	4th
Tenterden..	J. Munn Mace ..	*J. S. Tew ..	1	—	March	16th
Thanet ..	C. Taylor ..	*A. M. Watts ..	1†	—	May	22nd
Tonbridge..	N. R. Stone ..	*J. S. Tew ..	1	1	March	16th

\*These Medical Officers devote their whole time to Public Health work.

† Each medical officer of health has supplied information in reply to a summary of questions addressed from the County Health Department, on which this report is mainly based. The annual report has also been used where available.

‡ Sanitary Inspector holds meat inspectors certificate.

# ANNUAL REPORT.

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## ADMINISTRATION.

The following alterations in the local public health service took place in 1921, or early in 1922 :—

Resigning M.O.H.	Succeeded by	Date.
Dr. O. Sunderland (Bexley) .....	Dr. T. W. Hinds ...	Jan. 1st, 1921.
„ D. MacDougall (Dover R., Bridge R., Eastry R.)	„ J. J. Day .....	Feb. 1st, „
„ G. T. Birdwood (Walmer) ...	„ F. M. Hughes ...	Feb. 3rd, „
„ H. Hick (New Romney B. and Romney Marsh R )	„ A. McMillan .....	Oct. 1st, „

Dr. C. M. Ockwell took up his duties as medical officer of health of the newly-constituted Urban District of Crayford on January 1st, 1921.

I regret to report the death, at the end of the year, of Dr. A. Mason, medical officer of health for the Borough of Deal. Dr. F. M. S. Hulke was appointed in his stead, and took up his duties on January 30th, 1922.

Dr. W. Stewart Stalker was appointed whole-time medical officer of health of the Borough of Bromley, in succession to Dr. J. Mathewson, who was acting (temporarily) in that capacity. Dr. Stalker commenced his duties on August 8th, 1921.

Dr. Mends Gibson, the temporary medical officer of health of the North East Kent United District, terminated his appointment on April 19th, 1922. From that date the area was divided, Dr. W. C. D. Hills taking up duty as whole-time medical officer of health of Sheerness and Queenborough, while Dr. J. S. Clark acted as deputy medical officer of health for Milton Urban, Sittingbourne Urban and Milton Rural districts until Dr. A. J. Wernet commenced his duties on August 19th, 1922, also as a whole-time medical officer of health.



## MINISTRY OF HEALTH INQUIRIES.

The following inquiries were held by the Ministry of Health during the year 1921:—

Date.	Distriet.	Amount of Loan.	Purposes for which Loan required, or other reason of Inquiry.	Result.
March 2nd	Gravesend B	—	Application for authority to put in force the powers of the Land Clauses Acts with respect to the purchase of certain land for sewerage outfall and disposal works.	Scheme sanctioned and construction of sewers commenced early in 1922.
Dec. 5th ...	Gravesend B	(a) £214,000	(a) For the purpose of sewerage and sewage disposal works; and	
		(b) £7,000	(b) for certain sewerage in the Corporation new housing estate.	
March 11th	Maidstone R	£4,600	For works of sewerage and sewage disposal for the parish of Bearsted.	Loan sanctioned (as part of a comprehensive scheme). Work completed in March, 1922.
March 15th	Sheppey R...	£3,500	For works of water supply for Sheerness East.	Sanction given (High cost of work, and improvement in distribution of present supply, has prevented the carrying out of the work).
April 12th	Hythe B ...	£500	For works in connection with the sewer outfall.	Sanction given, and work to be commenced at first favourable opportunity.
April 13th	Margate B ...	£45,873 (initial sum)	Proposed extension of drainage system.	Sanction given, to raise the sum of £46,769.
May 3rd ...	Beckenham U	—	Inquiry into application of a firm of manufacturing chemists for a special Order (under Sec. 45, H. T. P., &c., Act, 1919), in connection with the erection of buildings as physical research laboratories.	Application granted subject to certain conditions.



Date.	District.	Amount of Loan.	Purposes for which Loan required, or other reason of Inquiry.	Result.
June 2nd ...	Folkestone B	—	Inquiry into application for issue of an Order permanently constituting the Town Council as the Port Sanitary Authority for a part of the Port of Folkestone.	Order drafted and submitted for suggestions.
July 22nd...	Dover B.....	—	Ditto (Port of Dover) . . . . .	Draft Order prepared and sent to Borough Council for comment.
October 4th	Maidstone B	—	Application for approval of a resolution deciding to prepare a town planning scheme (area partly situated in the Rural Districts of Hollingbourn, Maidstone and Malling).	Resolution approved and preliminary statement now in hand.
Dec. 1st ...	Margate B...	—	Application for approval of a preliminary statement of proposals for development in connection with town planning scheme.	Proposals still under consideration at the time of writing.

#### OFFICIAL CIRCULARS, &c., RESPECTING PUBLIC HEALTH MATTERS.

*Anthrax*.—Circular 172, dated 28/1/21, gives advice with regard to anthrax.

*Encephalitis Lethargica, &c.*—Circular 181, dated 23/2/21, has reference to the enquiries which should be instituted regarding cases of encephalitis lethargica, cerebro-spinal fever and poliomyelitis, and was accompanied by a memorandum dealing with encephalitis lethargica.

*Epidemic Diarrhœa*.—Circular 217, dated 15/7/21, indicates the precautions which should be taken by sanitary authorities in the summer months, with special reference to the prevention of epidemic diarrhœa.

*Infectious Diseases*.—Circular 252, dated 7/10/21, contains a suggestion for dealing with horsehair intended to be used for the manufacture of shaving brushes, as cases of anthrax continue to occur.

*The Notification of Infectious Diseases* occurring in London hospitals amongst patients brought to those hospitals from districts outside London, was discussed in Circular 220, dated 21/7/21.

*The Public Health (Tuberculosis) Regulations, 1921*, dated 21/4/21, revise the regulations of 1912. Article 3 extends to medical officers of tuberculosis dispensaries the same duties as were already placed on school medical inspectors. Article 4 requires every medical officer of health to revise the register of notifications not less than once in every quarter, and Article 5 requires him to notify changes of address to the medical officer of the sanitary authority of the district into which any patient has gone to reside. Circular 196, which accompanied the regulations, directed special attention to certain paragraphs thereof.

*Discharged Soldiers and Sailors suffering from Tuberculosis.*—Circular 179, issued on 10/2/21, dealt with the examination and certification, by tuberculosis officers, of tuberculous ex-service men, and had special reference to the payment of fees for such examination and certification.

(A circular letter to insurance committees, issued with this circular, dealt with the provision of extra nourishment to these tuberculous ex-service men, upon the certificate of the tuberculosis officer in certain cases).

*Treatment of Tuberculosis.*—With Circular 190, dated 31/3/21, were issued two memoranda (30/T and 31/T). The latter explains the arrangements which have been made for increasing grants payable to councils in aid of their approved expenditure on the treatment of tuberculosis, consequent upon the discontinuance of the contributions hitherto received from the insurance committees. Memo. 30/T indicates the arrangements in force previous to May 1st, 1921, with regard to the treatment of ex-service men, and explains in detail the arrangements to be brought into operation after that date. The Memo. also sets out the special services which it is desired that the tuberculosis officers should render in relation to pensions' administration. (See C.M.O.'s Quarterly Report, March, 1921).

*Tuberculosis.*—Memo. 48/T, accompanying Circular 208a, dated 20/5/21, sets out the procedure suggested for adoption by tuberculosis officers in regard to reports on tuberculous patients furnished by practitioners under the National Health Insurance (Medical Benefit) Amendment Regulations (No. 2), 1921.

*Tuberculosis.*—Circular 231, dated 22/8/21, gives the conditions prescribed by the Australian Commonwealth under which emigrants from the United Kingdom who have suffered from tuberculosis will be admitted into the Commonwealth. These conditions may involve certification by tuberculosis officers, and the Ministry hopes that councils will see their way to allow the co-operation of their officers in the manner indicated.



*Treatment of Tuberculosis.*—Circular 257, dated 3/11/21, deals with arrangements for treatment during the financial year 1922-1923, and contains suggestions for effecting economies by administrative means.

*The Public Health (Tuberculosis) Act, 1921*, makes further provision with respect to arrangements by local authorities for the treatment of tuberculosis. Section 1 (2) empowers the Minister to make such arrangements as he may think necessary, if a local authority fail to make adequate arrangements, and to recover the cost.

Section 2 empowers councils to make provision for the after-care of persons who have suffered from tuberculosis. No Exchequer grant is available in aid of expenditure incurred for this purpose, except to the extent indicated in the circular issued by the Local Government Board on 29/4/15.

*Venereal Disease.*—Circular 166, dated 20/1/21, enumerates approved substitutes for salvarsan.

*Venereal Disease.*—Circular 202, dated 31/5/21, states that there is not unanimity of opinion on the medical side as to the practicability and likelihood of success of self-disinfection, whereas on the moral and social side most weighty objections are advanced against it. In the circumstances the Government have decided that they cannot give official support to self-disinfection as a policy. This decision is not to be taken to apply to the provision of ablution centres with skilled attendants acting under medical supervision, though the value of such centres cannot be decided upon without further experience.

*Supply of Milk to Mothers and Infants.*—The Milk (Mothers and Children) Order, 1919, and the Local Authorities Milk (Mothers and Children) Order, 1919, were revoked by Orders of the Ministry in March, 1921; and Circular 185, dated 31/3/21, sets out the new conditions under which schemes for the supply of milk to expectant and nursing mothers and to children under five years of age will be sanctioned. (See C.M.O.'s Quarterly Report, March, 1921).

*Maternity and Child Welfare.*—Circular 234, dated 26/8/21, intimates a further curtailment of grant towards expenditure on the supply of milk at less than cost price.

*Supply of Milk to Mothers and Infants.*—Circular 267, dated 13/12/21, deals with grants to local authorities in this connection. The question of the substitution of meals, for free milk, is considered.

*M.C.W. arrangements for 1922-23.*—Circular 272, dated 29/12/21, makes suggestions for economies.



*Payment of Grant.*—Circular 174 (February, 1921) dealt with the payment of grant in respect of services relating to maternity and child welfare, the institutional treatment of tuberculosis, and the diagnosis and treatment of venereal disease.

*Expenditure on Public Health Services.*—Circular 182, issued in February, 1921, emphasises the need for economy in all branches of public health administration, subject to certain special considerations. The following extract from this Circular may be regarded as an epitome of its contents :—

“In dealing with a service such as public health, where the welfare and even the lives of the community are or may be at stake, it is clear that no absolute and rigid rules as to expenditure are practicable, or would be wise even if they were practicable. At the same time the need of lightening the burdens on the community is imperative. The policy for the present must be to restrict expenditure to what is immediately necessary in the interest of public health.”

*Sale of Milk.*—Two new Orders have been issued, and their effects were indicated in Circular 191, dated 29/3/21. They are—Milk (England and Wales) Order, 1921, made by the Food Controller, and the Local Authorities (Milk) Order, 1921, made by the Minister of Health. The former is a useful supplement to the powers of the authority under the Sale of Food and Drugs Acts.

*Sale of Food.*—Circular 225, dated 17/8/21, had attached two Orders—the Sale of Food Order, 1921, and the Local Authorities (Food) Order, 1921—by which functions recently exercised by the Food Controller and the Board of Trade are transferred to local authorities.

These functions concern the labelling of imported produce, the enforcing of requirements as to the composition of jam and marmalade, and the composition of dripping, margarine and other edible fats. The enforcement of the provisions in force with regard to the weight of bread and tea is now entrusted to the local authorities.

*Food Poisoning.*—“Memo. 39 Foods” (accompanying Circular 165) sets forth the steps which should be taken by medical officers of health in cases of suspected food poisoning.

*Food Poisoning.*—Circular C. L.1., dated 10/8/21, gives the arrangements which have been made between the Minister of Health and the Medical Research Council for the fuller investigation of the conditions which give rise to illness produced by bacterial food poisoning. Sanitary authorities are invited to make the fullest use (without payment) of these facilities, and an appended memorandum gives details as to the collection and transmission of samples.

*Town Planning.*—The Ministry of Health (Town Planning) Regulations, 1921, dated 29/3/21, made by the Minister of Health under Section 56 of the Housing, Town Planning, &c., Act, 1909, and Section 43 of the 1919 Act, revokes previous regulations. Circular 145, dated 30/3/21, gives a summary of the new regulations.

*Water Supplies.*—Circular 241 (15/9/21) had reference to the chlorination of water supplies, as a measure of precaution against the increased risk of water-borne disease through the prolonged drought.

*Treatment of Sewage and Trade Refuse.*—Circular 216 (July, 1921) referred to the experimental investigations which are in progress with regard to the treatment of sewage and trade refuse. Short accounts of experiments and of progress made will be issued in the form of annual or interim reports.

*The Sanitary Officers (Tenure of Office) Order*, dated 12/4/21, orders that every medical officer of health and every inspector of nuisances appointed after May 1st, 1921, who is required to devote the whole of his time to a public office or offices, and whose salary as medical officer of health or as inspector of nuisances, to the amount of one-half, is intended to be payable by a County Council or County Councils, shall be appointed without limit of time, provided that a person so appointed shall for a period of twelve months be deemed to have been appointed on probation only.

The Order also provides that a vacancy or impending vacancy in the office of medical officer of health or inspector of nuisances shall be reported forthwith to the Minister of Health.

*Public Health (Officers) Act, 1921*, amends the law relating to the appointment and tenure of office of medical officers of health, sanitary inspectors and inspectors of nuisances, and its general purport is to give permanence of tenure to whole-time officers, whether appointed before or after the commencement of the Act.

*Duties of Medical Officers of Health and Inspectors of Nuisances.*—Circular 171, dated February, 1921, issued to Port Sanitary Authorities, recapitulated the duties of medical officers of health and inspectors of nuisances with regard to their reports concerning work under Port Sanitary Authorities.

*Port and Riparian Sanitary Authorities.*—Circular 201, dated June, 1921, deals with the payment of grant in connection with the medical inspection of aliens.



*Sanitary Inspection of Shipping.*—Circular 221, dated 25/7/21, sets out the duties of medical officers of health and inspectors of nuisances of Riparian Sanitary Authorities. Emphasis is laid on the fact that these officers have the same duties to perform in regard to the sanitary inspection and control of shipping as they have with regard to houses within their districts.

*Factory and Workshop Act, 1901.*—An Order in Council, dated 27/5/21, transfers the powers and duties of the Secretary of State under this Act, as far as they relate to the supervision and enforcement of the provisions of the sections set out in the schedules to the Order, to the Minister of Health.

*Blind Persons Act, 1920.*—Circular 195, dated 9/5/21, deals with the general arrangements in respect of Exchequer grants in aid of services performed on behalf of blind persons.

*Offensive Trades.*—In *Mayo v. Stazicker*, King's Bench Division, it was held that it is not an offence to carry on a business (not being one of the six offensive trades) which had been declared by order of a local authority to be an offensive trade, where the business had been established before the coming into operation of the order declaring it to be an offensive trade—notwithstanding that the business may have changed hands afterwards.

## VITAL STATISTICS.

POPULATION.—The *total* population of the Administrative County at the middle of 1921, as estimated by the Registrar-General, was 1,077,528, viz., 759,106 in urban areas, and 318,422 in rural. These figures show an increase of 8,649 on the urban, and 22,803 on the rural, populations of 1920. The differences are largely accounted for by the fact of the Census enabling a more accurate estimation to be made. It is interesting to note that all the rural districts share in the increase, with the exceptions of Eastry, Sevenoaks and Tonbridge.

The density per acre of population in the urban districts was 6·23, varying from 34·4 in Penge to 0·2 in Lydd; and in the rural districts it was 0·38, varying from 1·07 in Dartford to 0·10 in Romney Marsh.

BIRTHS.—During the year, the births of 21,518 living children were registered, which is 4,025 lower than the total of the previous year. Male births numbered 11,021 and females 10,497. The total excess of births over deaths was 9,354, viz., 4,981 males and 4,373 females.



TABLE 1.—Information relating to Population, Acreage, Deaths, Births and Infantile Mortality in the different **Urban Districts** of the County of Kent in the year 1921.

DISTRICT.	Population 1921 (as estimated by Registrar General.) *	Population 1921 (as enumerated by 1921 Census, Preliminary Report).	Acreage, inclusive of water.	Persons per acre, 1921 (Total population).	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				
					Number of deaths of civilians at all ages.	Net death-rate per 1,000 of civil population.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Legitimate.	Illegitimate.	Total.	Deaths of Infants under one year of age per 1,000 Births.	No. of still-births.
Ashford U ...	14,440	14,355	2,850	5.1	163	11.3	278	8	286	19.9	15	4	19	67	1
Beckenham U ...	32,970	33,350	3,889	8.5	336	10.2	522	17	539	16.4	33	1	34	64	13
Bexley U ...	21,510	21,463	4,942	4.4	234	11.4	488	21	509	23.7	41	3	44	87	14
Broadstairs & St. Peter's U ...	11,130	15,465	2,770	4.1	116	10.5	119	8	127	11.5	3	—	3	24	4
Bromley B ...	34,810	35,070	4,697	7.5	386	11.1	581	43	624	18.0	28	5	33	53	23
Chatham B ...	43,230 42,103	42,665	4,356	10.0	541	12.9	969	42	1011	23.4	80	7	87	87	39
Cheriton U ...	6,990 4,801	6,995	1,160	6.1	43	9.0	165	13	178	25.5	7	—	7	40	3
Chislehurst U ...	8,910	8,980	2,791	3.2	87	9.8	115	5	120	13.5	5	1	6	50	2
Crayford U ...	12,050	11,924	2,455	5.0	116	9.7	308	7	315	26.2	26	1	27	86	6
Dartford U ...	26,350	26,005	4,242	6.3	288	11.0	471	11	482	18.3	26	1	27	57	22
Deal B ...	12,240	12,990	1,114	11.0	138	11.3	244	16	260	21.3	9	1	10	39	5
Dover B ...	40,201	39,985	1,948	20.7	460	11.5	932	46	978	24.4	50	7	57	59	33
Erith U ...	32,060	31,568	3,859	8.4	338	10.6	720	15	735	23.0	47	3	50	69	12
Faversham B ...	10,880	10,870	685	15.9	147	13.6	222	4	226	20.8	12	2	14	62	5
Folkestone B ...	33,517	37,571	2,482	13.6	388	11.6	599	42	641	19.2	24	8	32	50	26
Gillingham B ...	54,300 48,149	54,038	4,988	10.9	580	12.1	1090	33	1123	20.7	74	4	78	70	46
Gravesend B ...	31,300	31,137	1,260	24.9	417	13.4	678	23	701	22.4	50	2	52	75	23
Herne Bay U ...	10,130	11,872	887	11.5	113	11.2	126	13	139	13.8	14	—	14	101	4
Hythe B ...	7,440 7,147	7,764	2,608	2.9	83	11.7	123	13	136	18.3	7	8	15	111	3
Lydd B ...	2,232	2,256	12,082	0.2	16	7.2	32	1	33	14.8	2	—	2	61	1
Maidstone B ...	37,910	37,448	4,008	9.5	448	11.9	683	36	719	19.0	39	8	47	66	11
Margate B ...	27,740	46,475	2,463	11.3	307	11.1	434	25	459	16.6	30	2	32	70	14
Milton Regis U ...	7,540	7,481	2,555	3.0	79	10.5	164	11	175	23.3	10	—	10	58	4
New Romney B ...	1,500	1,605	1,364	1.1	15	10.0	16	2	18	12.0	1	—	1	56	—
Northfleet U ...	15,960	15,719	3,932	4.1	161	10.1	395	8	403	25.3	21	—	21	53	13
Penge U ...	26,430	26,278	770	34.4	311	11.8	541	23	564	21.4	33	3	36	64	6
Queenborough B...	3,115	3,073	695	4.5	27	8.7	74	5	79	25.4	14	—	14	178	1
Ramsgate B ...	30,080	36,560	2,306	13.1	401	13.4	598	43	641	21.4	44	9	53	83	16
Rochester City ...	31,500	31,261	2,936	10.8	365	11.6	677	21	698	22.2	49	5	54	78	26
Sandgate U... ..	2,571 2,134	2,243	273	9.5	20	9.4	45	1	46	17.9	—	—	—	—	1
Sandwich B ...	3,147	3,161	708	4.5	51	16.3	58	6	64	20.4	3	2	5	79	6
Sevenoaks U ...	8,830	9,058	3,259	2.8	107	12.2	151	11	162	18.4	7	1	8	50	3
Sheerness U ...	18,720 16,516	18,596	864	2.2	174	10.6	376	8	384	20.6	26	—	26	68	4
Sidcup U ...	8,920	8,940	2,043	4.4	107	12.0	154	10	164	18.4	13	1	14	86	6
Sittingbourne U ...	9,420	9,339	1,004	9.4	108	11.5	241	3	244	26.0	16	2	18	74	7
Southborough U ...	6,960	7,104	1,702	4.1	90	13.0	146	15	161	23.2	6	2	8	50	8
Tenterden B ..	3,347	3,438	8,946	0.4	36	10.8	54	—	54	16.2	1	—	1	19	1
Tonbridge U ...	15,898	15,929	1,403	11.4	155	9.8	297	14	311	19.6	12	2	14	46	11
Tunbridge Wells B	34,270	35,568	3,991	8.6	455	13.3	482	31	513	15.0	21	4	25	49	20
Walmer U ...	5,210 4,426	5,354	988	5.3	58	13.2	80	—	80	15.4	6	—	6	75	—
Whitstable U ...	9,140	9,842	794	11.6	134	14.7	139	2	141	15.5	5	—	5	36	1
Wrotham U ..	4,208	4,240	8,883	0.5	53	12.6	84	5	89	21.2	6	1	7	79	—
<b>Total Urban</b> {	759,106 745,921	795,035	121,952	6.23	8,652	11.6	14,671	661	15332	20.2	916	100	1,016	67	444

\* The figures given in this column are the *total* populations, as estimated by the Registrar-General, and it is on these figures that the vital statistics in this report have been computed. In the case of "garrison" centres, the *civil* population is added in italics.



TABLE 2.—Information relating to Population, Acreage, Deaths, Births and Infantile Mortality in the different **Rural Districts** of the County of Kent in the year 1921.

DISTRICT.	Popula- tion, 1921 (as estimated by the Registrar General).  *	Popula- tion, 1921 (as enumerated by 1921 Census, Preliminary Report).	Acreage includ- ing water.	Persons per acre, 1921 (Total population).	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				
					Number of deaths of civilians at all ages.	Net death-rate per 1,000 of civil popu- lation.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Legitimate.	Illegitimate.	Total.	Deaths of Infants under one year of age per 1,000 Births.	No. of still births.
Ashford, East	14,840	14,853	54,799	0·28	193	13·1	271	15	286	19·3	16	3	19	67	9
Ashford, West	7,650	7,740	39,489	0·20	85	11·2	127	12	139	18·2	4	1	5	36	1
Blean...	8,280	8,682	26,882	0·31	99	12·0	135	5	140	17·0	5	—	5	36	2
Bridge ...	11,240	11,228	41,796	0·27	124	11·1	211	7	218	19·4	11	1	12	56	5
Bromley ...	25,540	26,018	28,839	0·89	261	10·3	434	17	451	17·7	25	4	29	65	4
Cranbrook ...	12,800	12,909	41,315	0·31	150	11·8	235	8	243	19·0	14	1	15	62	5
Dartford ..	37,880	37,612	35,542	1·07	361	9·6	684	47	731	19·3	40	6	46	63	11
Dover ... {	8,549	8,871	27,121	0·32	85	10·3	129	6	135	15·8	12	1	13	97	3
	8,271														
Eastry ...	13,340	13,433	43,683	0·31	153	11·5	231	12	243	18·3	22	1	23	95	6
Elham ...	7,830	7,910	37,153	0·22	83	10·7	109	3	112	14·4	6	—	6	54	—
Faversham ..	14,260	14,301	44,002	0·33	159	11·2	299	13	312	21·9	14	—	14	45	7
Hollingbourn	13,050	13,163	57,671	0·23	141	10·9	226	7	233	17·9	7	—	7	31	6
Hoo ... {	4,847	4,818	19,727	0·25	56	12·5	103	5	108	22·3	10	—	10	93	1
	4,509														
Maidstone ..	16,920	16,986	34,996	0·49	215	12·8	312	20	332	19·7	13	2	15	46	8
Malling ...	25,280	25,351	38,458	0·66	311	12·4	566	35	601	23·8	35	2	37	62	11
Milton ...	13,960	13,997	27,727	0·51	140	10·1	277	14	291	20·9	12	2	14	49	9
Romney Marsh	3,016	3,158	30,375	0·10	24	8·0	53	2	55	18·3	3	—	3	55	1
Sevenoaks ...	23,360	23,861	63,335	0·37	261	11·2	415	26	441	18·9	18	2	20	46	6
Sheppey ... {	4,468	4,592	20,806	0·22	45	10·5	85	5	90	20·2	10	—	10	112	1
	4,318														
Strood ...	16,360	16,279	32,499	0·51	185	11·4	345	15	360	22·1	22	1	23	64	8
Tenterden ..	5,720	5,852	38,379	0·15	78	13·7	113	5	118	20·7	2	1	3	26	7
Thanet ... {	12,020	14,081	18,639	0·65	105	9·3	196	5	201	16·8	12	1	13	65	—
	11,329														
Tonbridge ...	17,212	17,399	46,805	0·37	198	11·6	329	17	346	20·2	20	3	23	67	6
Total in Rural Districts ... {	318,422	323,094	850,038	0·38	3,512	11·1	5,885	301	6,186	19·5	333	32	365	60	117
	316,965														
Total in Urban Districts ... {	759,106	795,035	121,952	6·23	8,652	11·6	14,671	661	15,332	20·2	916	100	1,016	67	444
	745,921														
Total for County {	1,077,528	1,118,129	971,990	1·11	12,164	11·5	20,556	962	21,518	20·0	1,249	132	1,381	65	561
	1,062,886														

\* The figures given in this column are the *total* populations, as estimated by the Registrar-General, and it is on these figures that the vital statistics in this report have been computed. In the case of "garrison" centres, the *civil* population is added in italics.

The birth rates for Kent, shewn below, are invariably lower than the rates for the country as a whole :—

Year.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Urban Districts ...	22·5	20·9	19·8	21·2	20·8	20·7	20·4	19·0	20·8	17·6	17·2	18·3	24·2	20·2
Rural Districts ...	21·9	22·6	21·8	19·8	20·1	20·9	20·1	18·7	19·6	17·1	17·3	17·5	25·2	19·5
Whole County	22·3	21·4	20·4	20·8	20·6	20·8	20·3	18·9	20·4	17·4	17·2	18·1	24·5	20·0
Percentage Illegitimate	3·94	3·85	3·68	4·13	4·14	4·36	3·85	4·54	6·00	6·93	8·20	7·60	4·88	4·48

The rates shew reductions on the previous year, to the extent of 4·0 urban, 5·7 rural and 4·5 whole county. The county rate was 2·4 lower than the rate for England and Wales.

High rates were recorded in:—(a) Urban—Crayford 26·2, Sittingbourne 26·0, Cheriton 25·5, Queenborough 25·4. Northfleet 25·3, (b) Rural—Malling, 23·8, Hoo 22·3.

Low rates were recorded in:—(a) Urban—Broadstairs and St. Peters, 11·5, New Romney 12·0, Chislehurst 13·5 and Herne Bay 13·8. (b) Rural—Elham 14·4, Dover 15·8, and Thanet 16·8.

STILL-BIRTHS numbered 561 as compared with 622 in 1920.

DEATHS.—The net number of deaths registered in the county was 12,164, being 587 more than the net aggregate of the previous year. 6,040 of the deaths were of males and 6,124 females.

The death rates for Kent for the years 1908–1921 are as follows :—

Year ...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Urban Districts	11·7	10·6	9·9	12·9	11·0	11·1	11·5	14·2	13·9	14·2	16·4	12·7	11·4	11·6
Rural Districts	12·5	11·7	11·5	11·3	9·7	10·3	10·2	13·8	13·3	13·8	15·7	12·6	11·2	11·1
Whole County	11·9	10·9	10·4	12·4	10·7	10·9	11·1	14·5	13·7	14·1	16·2	12·7	11·4	11·5



The urban, rural and county rates for 1921 are practically the same as in the previous year. The county rate is 0·6 below the rate for England and Wales.

High rates were recorded in:—(a) Urban—Sandwich 16·3, Whitstable 14·7, Faversham 13·6, Gravesend 13·4, Ramsgate 13·4, Tunbridge Wells 13·3, Walmer 13·2, and Southborough 13·0. (b) Rural—Tenterden 13·7, Ashford East 13·1.

Low rates were recorded in:—(a) Urban—Cheriton 9·0, Queenborough 8·7 and Lydd 7·2. (b) Rural—Romney Marsh 8·0.

INFANTILE MORTALITY.—The records for the administrative county and for England and Wales, together with a comparison of the rates among legitimate and illegitimate infants, for the years 1908–1921 are as follows:—

Year ...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Urban Districts	89	82	79	111	78	79	79	92	75	86	80	71	61	67
Rural Districts	84	77	80	103	72	80	71	82	68	77	69	64	53	60
Whole County	88	81	79	109	76	80	77	89	73	83	77	69	58	65
England and Wales	121	109	106	130	95	109	105	110	91	97	97	89	80	83
Legitimate (Kent)	80	77	75	104	74	76	73	86	69*	80*	71	63	54	61
Illegitimate (Kent)	178	164	185	228	138	149	175	150	118*	121*	144	147	141	138

\* For 1916 and 1917, in several districts, the deaths were not divided into legitimate and illegitimate, in which cases they were regarded as legitimate. Therefore, the actual disparity of rates for those two years is greater than is shown by the figures.

The variations in the infantile mortality rates in the different districts are considerable and urban rates are recorded from *nil* in Sandgate to 178 in Queenborough. The lowest rates after Sandgate were Tenterden 19, Broadstairs 24, Whitstable 36, Deal 39, and Cheriton 40 ; and the highest rates after Queenborough were Hythe 111 and Herne Bay 101.

In the rural districts the lowest rate recorded was in Tenterden 26, whilst relatively high rates were recorded in Sheppey 112, Dover 97, Eastry 95, and Hoo 93.

## ISOLATION HOSPITALS.

The summaries on pages 26 to 29 of my annual report for 1920 give full details of the hospital provision in the county (*a*) for ordinary infectious diseases and (*b*) for small-pox. The following corrections in that table are necessary to bring it up to date for 1921 :—

Chatham and Rochester	( <i>a</i> ).	For 80 beds read 74.
„ „	( <i>b</i> ).	„ 20 „ „ 18.
Dartford U. and R.	( <i>a</i> ).	„ 64 „ „ 76.
Dover B.	( <i>a</i> ).	„ 50 „ „ 55.
Folkestone B.	( <i>a</i> ).	„ 46 „ „ 48.
Sandgate U.	( <i>b</i> ).	„ 4 „ „ 8.
Hoo R.	( <i>a</i> ).	„ 12 „ „ 0.
„	( <i>b</i> ).	„ 0 „ „ 12.

(Cases of infectious disease in Hoo are now treated in the Strood Rural Hospital and the old hospital is reserved for small-pox.)

Crayford is served by the Bow Arrow Hospital, which also serves the Urban and Rural districts of Dartford.

The following improvements or deficiencies are noted by the medical officers of health :—

*Bexley*.—Additional bedrooms, bathrooms, &c., were provided.

*Broadstairs*.—More beds are required for diphtheria and in the admission and observation block.

*Dartford*.—Further wards, especially for enteric fever cases, and additional accommodation for nurses, are needed. (M.O.H., Dartford Rural.)

*Folkestone*.—A more commodious and efficient block has been provided for diphtheria cases. The re-organisation of the small-pox hospital is required to bring it up to modern requirements.

*Gillingham*.—An up-to-date new hospital is required.

*Hythe* —A hospital and an efficient disinfectant are required.

*Margate*.—Accommodation for patients is insufficient to meet the needs of the increased population.

*Ramsgate*—Equipment of small-pox hospital needs improvement.

*Tunbridge Wells*.—Extension of the administrative block is needed.

*Walmer*.—It is suggested that the hospital should be under the sole charge of one medical man.

*Blean R.*—Improved sanitary accommodation, &c., is under consideration.

*Malling R.*—There is need of a nurses' bedroom and bathroom in one block, and of more single wards for observation cases.



## NOTIFIABLE INFECTIOUS DISEASES.

Certain statistics relating to the incidence of notifiable infectious diseases in each sanitary district in Kent are shown in tables 3, 4, 6, 27 and 28, and below is tabulated a summary of the numbers of notifications of small-pox, scarlet fever, diphtheria and enteric fever, and the death rates from these diseases, for the last fourteen years :—

Year.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921.	
														Kent.	England & Wales.
SMALL-POX. Cases notified	15	0	2	27	3	1	2	2	0	0	5	23	9	4	?
Death Rate	0·00	<i>nil.</i>	0·00	0·00	<i>nil</i>	<i>nil</i>	0·00	<i>nil</i>	<i>nil</i>	<i>nil</i>	<i>nil</i>	0·003	0·001	0·001	0·00
SCARLET FEVER. Cases notified	2847	2649	2033	2330	3141	2408	3784	2862	1856	1079	1173	1825	2806	3667	?
Death Rate	0·05	0·04	0·03	0·02	0·03	0·03	0·04	0·04	0·03	0·01	0·02	0·02	0·02	0·03	0·03
DIPH-THERIA. Cases notified	1212	1225	928	1392	2008	1738	2631	2136	1581	1477	1552	1589	2391	2659	?
Death Rate	0·12	0·14	0·07	0·11	0·16	0·10	0·17	0·16	0·14	0·13	0·18	0·16	0·16	0·18	0·12
ENTERIC FEVER. Cases Notified	493	323	292	334	362	197	270	221	210	134	118	77	126	145	?
Death Rate	0·07	0·05	0·04	0·05	0·05	0·03	0·05	0·04	0·04	0·03	0·03	0·02	0·006	0·02	0·02

SMALL-POX.—The four cases of small-pox were notified from Dover Borough, but three of these occurred on shipboard. In the remaining case every possible avenue of infection was explored, but no definite evidence as to the source of the disease could be obtained.

TABLE 3.—Shewing the Number of Cases of Infectious Disease among the Civil Population notified in each of the **Urban Districts** in the County of Kent, the Number of such Cases which were treated in Hospital, and the incidence per 1,000 of the population, of cases of Diphtheria, Scarlet Fever, and Enteric Fever, during the year 1921.

DISTRICT.	Small-pox	Diphtheria including Membranous Group	Erysipelas.	Fevers.			Cerebro-spinal Meningitis.	Polio-myelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Cases removed to Hospital.					Incidence per 1,000 of population of notified cases.	
				Scarlet.	Enteric.	Puerperal.									Small pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Cerebro-spinal Meningitis.	Diphtheria	Scarlet Fever.
Ashford ...	...	37	1	21	...	2	...	...	...	44	6	1	1	12	...	37	20	...	...	2.57	1.46
Beckenham ...	...	32	8	118	4	...	1	...	...	50	12	1	6	...	...	22	91	2	1	0.98	3.58
Bexley ...	...	47	4	161	1	1	...	2	4	25	7	...	1	5	...	41	140	1	..	2.19	7.49
Broadstairs & St. Peter's...	...	48	3	45	...	...	...	...	2	19	8	2	...	11	...	37	29	..	...	4.32	4.05
Bromley (Borough) ..	...	52	19	169	10	2	3	...	6	37	8	3	8	82	...	46	148	8	3	1.50	4.86
Chatham (Borough)...	...	176	14	145	6	3	1	..	21	46	10	1	2	9	...	137	118	2	...	4.19	3.45
Cheriton ...	...	1	...	8	...	...	...	...	1	11	3	...	...	...	...	1	7	...	...	0.21	1.67
Chislehurst ...	...	15	1	26	10	...	...	...	2	3	2	...	...	1	...	9	22	6	...	1.69	2.92
Crayford ...	...	111	1	93	..	1	...	...	...	13	6	...	...	...	...	108	55	...	...	9.22	7.72
Dartford ...	...	244	17	279	5	3	...	...	...	31	5	...	...	20	...	243	246	5	...	9.26	10.59
Deal (Borough) ...	...	1	2	18	1	...	...	..	...	26	3	...	...	...	...	...	17	..	...	0.09	1.48
Dover (Borough)...	4	103	7	141	15	1	1	...	13	71	16	10	2	17	4	73	129	11	1	2.57	3.51
Erith ...	...	73	14	194	2	1	...	...	1	45	11	...	4	24	...	68	181	1	...	2.28	6.06
Faversham (Borough)...	...	72	8	21	1	...	...	...	...	25	10	1	...	..	...	72	19	1	...	6.62	1.94
Folkestone (Borough)...	...	29	7	48	1	...	...	...	6	66	19	..	1	...	...	26	40	1	...	0.87	1.44
Gillingham (Borough)...	...	159	10	139	2	1	1	...	6	58	5	2	1	10	...	116	108	1	1	3.31	2.89
Gravesend (Borough)...	...	48	16	86	7	..	...	...	2	38	4	...	1	..	...	35	68	5	...	1.54	2.75
Herne Bay ...	...	28	3	46	...	1	1	1	2	19	19	...	...	8	...	24	44	...	...	2.77	4.55
Hythe (Borough)...	...	3	1	33	1	...	...	...	...	8	...	...	1	5	..	1	11	...	...	0.42	4.62
Lydd (Borough)...	...	1	1	1	...	...	...	...	...	7	...	...	...	...	...	1	1	...	...	0.45	0.45
Maidstone (Borough)...	...	67	12	63	4	...	...	...	8	74	6	2	...	27	...	63	59	4	...	1.77	1.67
Margate (Borough)...	...	63	6	137	2	..	...	...	...	59	23	...	..	17	...	56	103	1	...	2.28	4.94
Milton Regis ...	...	15	2	38	...	...	...	...	1	10	1	...	1	5	...	13	35	...	...	1.99	5.04
New Romney (Borough)...	...	1	..	2	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	0.67	1.34
Northfleet ..	...	39	6	13	3	...	...	...	3	14	1	...	...	11	...	3	6	...	...	2.45	0.82
Penge ...	...	40	5	126	6	1	...	1	...	39	12	...	1	13	...	32	102	6	...	1.52	4.77
Queenborough (Borough) ..	...	5	...	8	...	...	...	...	...	3	3	2	...	..	...	3	8	...	...	1.61	2.37
Ramsgate (Borough) ..	...	128	14	249	2	1	...	...	8	65	19	7	2	13	...	92	199	2	...	4.26	8.28
Rochester (City) ...	...	139	7	52	6	...	...	...	2	31	3	...	...	...	...	117	46	6	...	4.42	1.66
Sandgate...	...	5	...	8	...	...	...	...	...	3	...	...	...	...	...	5	8	...	...	2.35	3.75
Sandwich (Borough)...	...	...	...	3	1	...	...	...	...	2	2	...	...	1	...	..	2	1	...	0.00	0.96
Sevenoaks ...	...	...	1	10	...	...	...	...	...	6	...	...	...	2	...	...	9	...	...	0.00	1.14
Sheerness ...	...	11	10	156	2	..	...	...	3	21	6	...	1	5	...	10	151	1	...	0.67	9.45
Sidcup ...	...	25	6	69	...	...	...	...	...	7	3	...	1	...	...	21	53	...	...	2.81	7.74
Sittingbourne ...	...	20	4	15	2	...	...	...	...	17	3	...	...	6	...	20	14	2	...	2.13	1.60
Southborough ...	...	18	3	54	...	2	..	...	...	...	...	...	...	1	...	17	54	...	...	2.59	7.76
Tenterden (Borough)...	...	...	...	3	1	1	...	...	..	5	...	...	...	...	...	...	...	...	...	0.00	0.90
Tonbridge ...	...	21	3	21	...	...	...	..	...	14	12	...	2	11	...	17	21	...	...	1.33	1.33
Tunbridge Wells (Borough)...	...	32	13	174	3	3	...	...	3	32	13	2	3	29	...	29	168	2	...	0.94	5.08
Walmer ...	...	20	...	4	1	..	...	...	...	1	...	...	...	...	...	1	4	1	...	1.52	0.91
Whitstable ...	...	2	2	22	...	...	...	...	1	...	...	2	...	26	...	1	13	...	...	0.22	2.41
Wrotham ...	...	1	...	9	...	...	...	...	...	...	5	...	...	..	...	...	9	...	...	0.24	2.14
TOTAL URBAN...	4	1932	231	3028	99	24	8	4	95	1045	266	36	39	371	4	1598	2560	70	6	2.60	4.06



TABLE 4 —Showing the number of Cases of Infectious Disease among the Civil Population, notified in each of the **Rural Districts** in the County of Kent, the Number of such Cases which were treated in Hospital, and the incidence per 1,000 of the population, of cases of Diphtheria, Scarlet Fever, and Enteric Fever, during the year 1921.

DISTRICT.	Small-pox.	Diphtheria including Membranous Group	Erysipelas.	Fevers.			Cerebro-spinal Meningitis.	Polio-myelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Cases removed to Hospital.					Incidence per 1,000 of population of notified cases.		
				Scarlet.	Enteric.	Puerperal.									Small-pox.	Diphtheria	Scarlet Fever.	Enteric Fever.	Cerebro-spinal Meningitis.	Diphtheria.	Scarlet Fever.	Enteric Fever.
Ashford, East ...	...	21	3	9	...	3	...	...	...	35	..	...	1	7	...	18	8	...	...	1.42	0.61	0.00
Ashford, West ...	...	12	3	23	2	...	...	...	2	15	...	...	3	8	...	7	13	1	...	1.57	3.01	0.27
Blean ...	...	10	2	7	3	...	...	...	1	12	5	...	...	3	...	9	6	3	...	1.21	0.85	0.37
Bridge ..	...	54	2	22	1	...	...	...	1	15	1	...	...	...	...	52	22	...	...	4.81	1.96	0.09
Bromley ..	...	68	6	37	1	...	2	...	...	25	2	1	1	4	...	58	33	1	2	2.67	1.45	0.04
Cranbrook ...	...	6	3	31	1	2	...	...	...	13	2	2	2	2	...	...	...	...	...	0.47	2.43	0.08
Dartford ...	...	150	17	168	7	3	...	...	3	27	6	1	2	10	...	114	104	...	...	3.96	4.44	0.19
Dover ...	...	21	1	6	...	...	...	...	...	9	1	...	...	...	...	21	3	...	...	2.54	0.73	0.00
Eastry ..	...	2	2	5	1	1	...	...	...	17	3	...	...	2	...	1	2	...	...	0.15	0.38	0.08
Elham ...	...	9	1	11	...	...	...	...	...	23	2	...	...	22	...	7	9	...	...	1.15	1.41	0.00
Faversham ...	...	39	6	81	4	2	...	...	5	12	8	...	...	4	...	20	85	2	...	2.74	5.69	0.29
Hollingbourn ..	...	32	2	21	2	...	...	...	1	...	23	1	...	3	...	16	10	...	...	2.46	1.61	0.16
Hoo ...	...	27	...	4	2	...	...	...	...	2	...	7	..	...	...	23	2	2	...	5.99	0.89	0.45
Maidstone ...	...	31	6	15	2	1	...	...	...	20	1	1	...	1	...	25	15	...	...	1.84	0.89	0.12
Malling ...	...	25	8	41	2	2	...	...	3	48	9	...	...	...	...	23	39	1	...	0.99	1.63	0.08
Milton ..	...	81	3	24	1	...	...	...	...	13	5	...	1	2	...	81	23	1	...	5.81	1.72	0.08
Romney Marsh	...	...	1	2	...	...	...	...	1	3	...	...	...	6	...	...	...	...	...	0.00	0.67	0.00
Sevenoaks ...	...	39	...	13	..	...	...	1	1	26	9	..	1	8	...	39	13	...	...	1.67	0.56	0.00
Sheppey ...	...	2	1	3	...	2	...	...	...	5	2	1	...	8	..	2	3	...	...	0.47	0.70	0.00
Strood ...	...	18	5	28	16	...	...	...	2	13	3	...	...	...	...	8	23	14	...	1.11	1.72	0.98
Tenterden ...	...	...	..	6	...	1	...	...	...	7	...	...	1	...	...	...	...	...	..	0.00	1.05	0.00
Thanet ...	...	68	7	28	...	...	...	...	1	24	5	...	...	7	...	34	26	...	...	6.01	2.48	0.00
Tonbridge ...	...	12	9	54	1	2	...	...	2	29	5	2	3	9	...	11	46	1	...	0.70	3.14	0.06
Total in Rural Districts ...	...	727	88	639	46	19	2	1	23	393	92	16	15	106	...	569	485	26	2	2.30	2.02	0.15
Total in Urban Districts ...	4	1932	231	3028	99	24	8	4	95	1045	266	36	39	371	4	1598	2560	70	6	2.60	4.06	0.14
Total in County	4	2659	319	3667	145	43	10	5	118	1438	358	52	54	477	4	2167	3045	96	8	2.51	3.46	0.14

The 85 cases of scarlet fever admitted to Hospital in Faversham Rural includes several cases admitted for observation.

The patient suffered from an acute confluent hæmorrhagic type of the disease, which proved fatal, with complications. Fifty-eight contacts, immediate and remote, were re-vaccinated.

(Varicella, or chicken-pox, was notifiable during a portion of the year in Bexley and forty cases were notified.)

SCARLET FEVER.—The number of cases notified was higher than in any year since 1914, the “wave” of the disease which was noted during 1920 continuing into the year under review.

As in 1920, the cases seem generally to have been of a mild type—a fact which undoubtedly influences the incidence of the disease, since it is the mild and unrecognised case which so frequently gives rise to school outbreaks. Several medical officers comment on this point, and refer to the fact that frequently the symptoms were regarded as being the effects of “colds,” a number of cases never being attended medically.

The increase in the incidence of the disease was practically confined to the urban areas, although there was a rather excessive outbreak affecting the parish of Rainham, in the Milton rural area. The great majority of the urban areas shared in the increase, but Folkestone was a notable exception with 48 cases, as against 121 in 1920.

Dr. Selby, of Faversham rural writes:—“One likely source of infection in children’s schools in the country is that the whole of the school drinks from two or three metal cups.

“Another undoubted source is the fact that in spite of my warnings in the past few years some of the schools still keep the pencils, pens and paint brushes in bulk, instead of giving each child a separate receptacle. During the epidemic I issued to the shopkeepers in Boughton a leaflet urging that all metal money should be boiled daily.”

DIPHTHERIA.—The number of cases of diphtheria reported in 1921 was higher than in any year since the commencement of the County Health Department.

It will be seen from the tables referring to the work of the County Bacteriological Laboratory (pages 62–65) that 19,679 swabs were examined for the presence of diphtheria bacilli. This total far surpasses any total since the opening of the laboratory in 1912, being no less than 7,298 *in excess of the previous record*.

Both incidence and type of the disease appear to have been varied. While in *Chatham Borough* the disease showed a material decline, the adjacent city of *Rochester* recorded the largest number of cases of the disease since 1912. In



*Gillingham* (again adjoining), there was a fair number of cases—"not found in any special school, but scattered, and in all parts of the district." In *Folkestone Borough* "the majority of the cases . . . . of local origin have been of a very mild type," whereas the cases occurring in *Rochester City* were "of a severe type, the case mortality being 11·1 per cent."

Many school outbreaks were dealt with by wholesale swabbing of the scholars, and the isolation of the "carriers" so found was invariably a means of preventing further spread of the disease.

In *Dover Rural* occasional cases had occurred during the year with five practically simultaneous cases in September. On investigation, it was found that there was a common milk supply in four cases, while a relative of the fifth worked daily at the source of that supply. This source was thoroughly examined, and though everything was apparently satisfactory, the supply was stopped. "Swabbing" at the school revealed six "carriers," one of whom was a child from the suspected premises, and after these had been excluded and treated, only six further cases developed and the outbreak ceased.

In reply to a question asked by the County Health Department as to whether diphtheria anti-toxin was administered to the fullest advantage, forty-eight districts replied in the affirmative, twelve in the negative and in five districts no opinion was expressed.

Several medical officers comment on the failure to use anti-toxin. In one rural district none was applied for to the sanitary authority, although there were 54 cases, with six deaths. It may be noted that whereas only 37% of the cases occurred in the twelve districts where full advantage is not made of the use of anti-toxin, over 50% of the total deaths from the disease in the county occurred in the same districts.

Dr. Selby, of *Faversham Rural*, mentions the fact that a case of anaphylaxis (a state of increased susceptibility to a drug or toxin, following administration of the drug or infection with the disease which produces the toxin) the previous year, of a particularly distressing character, made some practitioners rather shy of giving anti-toxin soon enough and in large enough doses.

ENTERIC FEVER.—It will be noted from the table that there was a slight increase in the number of cases notified, compared with the years since 1916, but the number was far below the figure usually presented only a few years ago. The mortality per thousand of the population was 0·02, an increase when compared with the record low rate of 1920, but comparing very favourably with the preceding years.

Dr. Clements, of Beckenham, mentions that one of the four cases of enteric fever occurring in his district had been “paddling” in the Chaffinch Brook, which receives the effluent from the Croydon Sewage Farm. Dr. Clements has made reference in previous reports to this possible and suspected source of typhoid infection, and I quoted some of his remarks in my annual report for 1920.

MALARIA.—Thirty-six cases were reported in the urban districts and 16 in the rural, the geographical distribution being shown in tables 3 and 4. In the previous year there were 162 cases in the urban districts and 49 in the rural.

CEREBRO-SPINAL MENINGITIS.—Ten cases of this disease occurred in the County during 1921, viz., eight in the urban districts and two in the rural districts, compared with four and five respectively in 1920. The distribution of the cases will be found in tables 3 and 4 of this report.

DYSENTERY.—Cases of this disease were notified as follows :—Broadstairs 1, Dartford 62 (all from L.C.M. Hospital), Dover 1, Herne Bay 1, Margate 1, Milton Regis 1, Ramsgate 1, Sevenoaks 2.

TUBERCULOUS DISEASES.—Number of cases of phthisis and other tuberculous diseases, and mortality during the past fourteen years :—

Year.		1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921.	
															Kent.	England and Wales.
Phthisis	Cases Notified	—	—	—	—	2501	1936	1744	1448	1554	1408	1652	1455	1489	1438	56,344
	Death-rate	0·84	0·78	0·78	0·87	0·88	0·81	0·86	0·96	0·99	1·03	1·16	0·98	0·80	0·81	0,884
Other Tuberculous Diseases.	Cases Notified	—	—	—	—	—	931	525	446	383	399	379	422	323	358	15·368
	Death-rate	0·35	0·31	0·28	0·33	0·30	0·31	0·28	0·37	0·29	0·31	0·31	0·25	0·24	0·22	0·243

The deaths from phthisis numbered 876, 620 being recorded in *urban* districts and 256 in *rural* districts, the mortality rates being 0·82 and 0·80 respectively.

As regards other tuberculous diseases, 170 deaths occurred in *urban* and 65 in *rural* districts, the mortality rates being 0·22 and 0·20 respectively.



TABLE 5.—Number of cases of Tuberculosis notified in each district in Kent under the Public Health (Tuberculosis) Regulations, 1912, during 1921: together with the number of deaths occurring from Tuberculosis and the average figures for five years (1917-1921).

URBAN DISTRICTS.	Estimated Total Popula- tion, 1921	Notifications, 1921.			Deaths.						RURAL DISTRICTS.	Estimated Total Popula- tion, 1921.	Notifications, 1921.			Deaths.					
		Pulm.	Other.	Total.	Pulmonary.			Other.					Pulm.	Other.	Total.	Pulmonary.			Other.		
					Average of five years, 1917-21.	1921.	Rate per 1,000, 1921.	Average of five years, 1917-21.	1921.	Rate per 1,000, 1921.						Average of five years, 1917-21.	1921.	Rate per 1,000, 1921.			
Ashford ... ..	14,440	41	6	50	12	11	0·76	4	3	0·20	Ashford, East ... ..	14,840	35	—	35	13	23	1·55	3	—	0·00
Beckenham ... ..	32,970	50	12	62	24	25	0·76	9	2	0·06	Ashford, West ... ..	7,650	15	—	15	6	8	1·05	1	—	0·00
Bexley ... ..	21,510	25	7	32	15	9	0·42	5	4	0·19	Blean ... ..	8,280	12	5	17	9	7	0·85	2	1	0·12
Broadstairs and St. Peter's ... ..	11,130	19	8	27	9	9	0·81	3	1	0·09	Bridge ... ..	11,240	15	1	16	9	10	0·89	2	1	0·9
Bromley (Borough)	34,510	37	8	45	23	22	0·63	7	5	0·14	Bromley ... ..	25,540	25	2	27	21	19	0·74	6	5	0·20
Clatham (Borough)	43,230	46	10	56	58	57	1·32	12	14	0·32	Cranbrook ... ..	12,800	13	2	15	10	11	0·86	3	2	0·16
Cheriton ... ..	6,990	11	3	14	3	3	0·43	2	3	0·43	Dartford ... ..	37,880	27	6	33	36	27	0·71	9	9	0·24
Chislehurst ... ..	8,910	3	2	5	4	7	0·79	2	—	0·00	Dover ... ..	8,549	9	1	10	6	5	0·58	3	2	0·23
*Crayford ... ..	12,050	13	6	19	—	9	0·75	—	1	0·08	Eastry ... ..	13,340	17	3	20	12	10	0·75	2	3	0·22
Dartford ... ..	26,350	31	5	36	24	22	0·83	5	7	0·27	Elham ... ..	7,830	23	2	25	9	9	1·15	2	1	0·13
Deal (Borough) ...	12,240	26	3	29	11	5	0·41	2	2	0·16	Faversham ... ..	14,260	12	8	20	12	12	0·84	3	3	0·21
Dover (Borough) ...	40,201	71	16	87	37	30	0·75	11	7	0·17	Hollingbourn ... ..	13,050	—	23	23	11	9	0·69	3	3	0·22
Erith ... ..	32,060	45	11	56	33	32	1·00	8	7	0·22	Hoo ... ..	4,847	2	—	2	4	3	0·61	1	1	0·21
Faversham (Borough)	10,880	25	10	35	12	12	1·10	3	1	0·09	Maidstone ... ..	16,920	20	1	21	16	14	0·83	5	3	0·18
Folkestone (Borough)	33,517	66	19	85	32	32	0·95	13	12	0·36	Malling ... ..	25,280	48	9	57	23	16	0·63	9	9	0·36
Gillingham (Borough)	54,300	58	5	63	51	45	0·83	13	12	0·22	Milton ... ..	13,960	13	5	18	15	7	0·50	2	4	0·29
Gravesend (Borough)	31,300	38	4	42	38	35	1·12	9	5	0·16	Romney Marsh ... ..	3,016	3	—	3	2	2	0·66	1	2	0·66
Herne Bay ... ..	10,130	19	19	38	8	6	0·59	2	3	0·30	Sevenoaks ... ..	23,360	26	9	35	19	16	0·68	6	5	0·21
Hythe (Borough) ...	7,440	8	—	8	5	4	0·54	1	—	0·00	Sheppey ... ..	4,468	5	2	7	1	2	0·45	1	—	0·00
Lydd (Borough) ...	2,232	7	—	7	2	1	0·45	1	1	0·45	Strood ... ..	16,360	13	3	16	14	17	1·04	5	1	0·06
Maidstone (Borough)	37,910	74	6	80	44	26	0·69	9	7	0·18	Tenterden ... ..	5,720	7	—	7	5	5	0·87	1	1	0·17
Margate (Borough)	27,740	59	23	82	28	36	1·30	10	11	0·50	Thanet ... ..	12,020	24	5	29	13	11	0·92	2	3	0·25
Milton Regis ... ..	7,540	10	1	11	7	7	0·93	1	—	0·00	Tonbridge ... ..	17,212	29	5	34	20	13	0·76	5	6	0·35
New Romney (Borough) ... ..	1,500	—	—	—	1	1	0·67	—	—	0·00	Total in Rural Districts...	318,422	393	92	485	285	256	0·80	77	65	0·20
Northfleet ... ..	15,960	14	1	15	19	10	0·63	5	5	0·32	„ Urban „ ... ..	759,106	1,045	266	1,311	704	620	0·82	195	170	0·22
Penge ... ..	26,430	39	12	51	23	17	0·64	8	7	0·26											
Queenborough (Borough) ... ..	3,115	3	3	6	2	1	0·32	—	—	0·00											
Ramsgate (Borough)	30,080	65	19	84	35	30	1·00	8	13	0·43											
Rochester (City) ...	31,500	31	3	34	29	23	0·73	8	5	0·11											
Sandgate ... ..	2,571	3	—	3	1	2	0·78	—	—	0·00											
Sandwich (Borough)	3,147	2	2	4	2	1	0·31	1	1	0·31											
Sevenoaks ... ..	8,830	6	—	6	6	5	0·57	2	4	0·46											
Sheerness ... ..	18,720	21	6	27	18	16	0·85	4	3	0·16											
Sidcup ... ..	8,920	7	3	10	5	5	0·56	1	3	0·34											
Sittingbourne ... ..	9,420	17	3	20	9	8	0·85	3	2	0·21											
Southborough ... ..	6,960	—	—	—	6	6	0·86	1	—	0·00											
Tenterden (Borough)	3,347	5	—	5	2	1	0·30	2	1	0·30											
Tonbridge ... ..	15,898	14	12	26	17	10	0·63	4	3	0·19											
Tunbridge Wells (Borough) ... ..	34,270	32	13	45	39	26	0·76	11	6	0·18											
Walmer ... ..	5,210	1	—	1	4	3	0·58	1	2	0·38											
Whitstable ... ..	9,140	—	—	—	9	7	0·77	2	7	0·77											
Wrotham ... ..	4,208	—	5	5	4	3	0·71	—	—	0·00											
Total ... ..	759,106	1,045	266	1,311	704	620	0·82	195	170	0·22	Total for County ... ..	1,077,528	1,438	358	1,796	989	876	0·81	272	235	0·22

\*Crayford has been an Urban District since October, 1920. Previously Crayford was part of Dartford Rural District.





PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 2nd January, 1921, to the 31st December, 1921,  
in the County of Kent.

AGE PERIODS.	Notifications on Form A												Notifications on Form B				Number of Notifications on Form C.			
	Number of Primary Notifications.												Number of Primary Notifications.				Total Notifications on Form B.		Poor Law Institutions.	Sana-toria.
	Total Notifications on Form A.												Total Prim-ary Notifi-cations.							
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up-wards.	Total Prim-ary Notifi-cations.	Un-der 5	5 to 10	10 to 15	Total Prim-ary Notifi-cations.				
Pulmonary Males...	—	4	32	33	68	120	179	124	88	43	9	700	764	—	4	—	4	15	268	
“ Females	1	6	29	38	99	105	173	125	48	25	11	660	705	1	—	5	6	23	152	
Non-pulmonary Males	7	29	49	41	12	5	9	2	2	—	1	157	163	—	1	2	3	—	29	
“ Females	4	18	34	42	25	16	20	4	2	2	1	168	173	—	—	1	1	—	6	

It will be seen from the above tabulation that the death-rate from phthisis in 1921 was slightly higher than that for the previous year, although it shows a great reduction compared with the rates for the war period. The rate for other tuberculous diseases is the lowest yet recorded.

Table 6 shows the numbers of notifications of cases of tuberculosis which have been received in the Administrative County of Kent for the period from January 2nd to December 31st, 1921, classified according to age, sex and pulmonary or non-pulmonary type.

For the purposes of comparison between the notification of, and deaths from, phthisis and other tuberculous diseases, I have included Table 5 shewing these details for each sanitary district in the Administrative County of Kent, together with the average number of deaths from these causes for the five years, 1917-1921.

The average number of deaths from phthisis or pulmonary tuberculosis in all the forty-two *urban* districts of Kent, for the five years ended December 31st, 1921, was 704, and the total number of notifications of this disease received from these urban districts during 1921 was 1,045. The figures for the twenty-three *rural* districts were 285 and 393 respectively.

The notification of tuberculosis is still by no means complete. Notification is frequently delayed until a late stage of the disease, and in twenty-nine urban districts and eighteen rural districts the number of notifications did not exceed twice the number of deaths. Many local medical officers of health remind the local practitioners in their area, from time to time, of the requirements of the Tuberculosis Regulations, but the standard of notifications in the majority of the districts is unsatisfactory. In the East Kent (No. 2) United District, for example, 62·5 % of the deaths from this disease were of unnotified persons, in Chatham the percentage was 50 and in Dover it was 46.

#### TUBERCULOSIS DISPENSARY ORGANISATION.

##### District No. 1.

(Tuberculosis Officer in Charge, DR. W. B. MARTIN.)

<i>Address.</i>	<i>Day and Time of Opening.</i>	<i>Additional Area for Domiciliary Visitation.</i>
Bromley ..... 2, Park Road .....	Wednesday, 1.30-3.30 p.m.	Dartford R., Bromley R.,
Erith..... 19, Pier Road .....	Monday, 5.0-6.0 p.m. Thursday, 2.0-4.0 p.m.	Chislehurst, Crayford, Sidcup and Bexley.
*DARTFORD ... 41, Overy Street ... (Tel. No. 378)	Monday, 1.30-3.30 p.m. Thursday, 5.30-6.30 p.m.	



**District No. 2.**

(Tuberculosis Officer in Charge, DR. P. J. GAFFIKIN.)

*ROCHESTER ... 13, New Road .. ..	Friday, 9.30-10.30 a.m.	Northfleet, Strood R.
(Tel. No. Chatham, 82)	Tuesday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	Hoo R., Chatham, N.E. fringe of Malling R.
Gillingham ... 228, Nelson Road ...	Tuesday, 9.30-10.30 a.m.	N.W. fringe of Holling- bourn R., and E.
	Friday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	quarter of Milton R.
Gravesend ... 22, Cobham Street ...	Saturday, 10.30 a.m.-12.0 noon	

**District No. 3.**

(Tuberculosis Officer in Charge, DR. H. L. GRABHAM.)

Sevenoaks..... 4, Cramptons Road...	Tuesday, 1.30-3.30 p.m.	Sevenoaks R., Tonbridge
*TONBRIDGE .. 53, Pembury Road ...	Monday, 1.30-3.30 p.m.	R., Southborough U.,
(Tel. No. 228)	Thursday, 5.15-6.0 p.m.	Cranbrook R., and S.
Tunbridge		fringe of Malling R.
Wells..... 34, Calverley Street	Monday, 5.0-5.45 p.m.	
	Thursday, 1.30-3.0 p.m.	

**District No. 4.**

(Tuberculosis Officer in Charge, DR. H. B. GIBBINS.)

*MAIDSTONE .. 4, Station Road ... ..	Tuesday, 12.30-3.0 p.m.	Wrotham, Malling R.
(Tel. No. 248)	Friday, 12.30-3.0 p.m.	(except N.E. and S.
Sittingbourne. 36, Albany Road.....	Monday, 12.0-2.0 p.m.	fringes), Maidstone R.,
Sheerness ..... 61, Alnia Road (tem-	Thursday, 11.0 a.m.-1.0 p.m.	Milton R. (except E.
porary address —		quarter), Hollingbourn
patients only seen		R. (except N.W. fringe),
by appointment)		Milton Regis, Queen-
		borough, Sheppey.

**District No. 5.**

(Tuberculosis Officer in Charge, DR. T. M. PEARCE.)

Dover ..... 9, Eastbrook Place ..	Thursday, 10.0 a.m.-12.0 noon and 1.30-3.30 p.m.	Bridge R., Eastry R., Elham R., Dover R.,
*FOLKESTONE. 80, Dover Road ..... (Tel. No. 40)	Monday, 10.0 a.m.-12.0 noon and 2.30-6.0 p.m.	Sandwich, Walmer, Cheriton, Sandgate and
Deal ..... 16, Clanwilliam Road	Tuesday, 10.0 a.m.-12.0 noon	Hythe, less area im-
Canterbury ... 11, Longport Street	Friday, 10.0 a.m.-12.0 noon and 1.15 p.m.-2.30 p.m.	mediately south of, and adjacent to, the railway line between Ramsgate and Canter- bury.

**District No. 6.**

(Tuberculosis Officer in Charge, DR. C. C. A. DE VILLIERS.)

Faversham ... 2, Albion Terrace ...	Tuesday, 1.0 p.m.	Faversham R., Blean R.,
Herne Bay ... 16, High Street ...	1st and 3rd Thursday each month at 12.0 noon	Whitstable, Thanet R., and Broadstairs U., and area immediately south of, and adjacent to, the railway line be- tween Ramsgate and Canterbury.
*RAMSGATE ... Charlotte Cottage, Market Place	Wednesday, 1.30 p.m.	
Margate ..... Eton House, St. Peter's Road	Friday, 2.0 p.m.	

**District No. 7.**

(Tuberculosis Officer in Charge, DR. J. M. CLEMENTS.)

Beckenham	Fire Station, Bromley	Tuesday, 2.0-5.0 p.m.	Penge.
(Tel. No.	Road	Wednesday, 9.30 a.m.-1.30	
Bromley, 810)		p.m.	

**District No. 8.**

(Tuberculosis Officer in Charge, DR. J. C. McMILLAN.)

Ashford.....	1, Barrow Hill Place	Thursday, 10.0 a.m.-12.0 noon	Ashford E., Ashford W.,
(Tel. No. 14			Romney Marsh, Ten-
Lenham)			terden U. and R., New
			Romney U. and Lydd B.

\* Tuberculosis Officer's Head Office.

This branch of the work was continued satisfactorily during the year.

The tenancy of the Maidstone dispensary premises at "Pitfield," Marsham Street, terminated on December 23rd, 1921, and the dispensary was then transferred to No. 4, Station Road, Maidstone.

The County Council received notice to quit the premises, 20, Marine Parade, Sheerness, which were used as a tuberculosis dispensary. Alternative accommodation has not yet been secured, but for the time being patients are seen, by appointment, by the tuberculosis officer at 61, Alma Road, Sheerness.

Dr. Hills resigned his appointment as tuberculosis officer for the Maidstone area and terminated his engagement on April 18th, 1922. He was succeeded by Dr. H. B. Gibbins, who commenced duty on May 1st, 1922.

On the transfer of Sanatorium Benefit on May 1st, 1921, two clerks were transferred from the Kent Insurance Committee to the county tuberculosis staff. These two clerks, Mr. Ingram and Mr. Moon, have since been transferred to the Tonbridge and Rochester dispensaries respectively, to replace Mr. Wilson and Mr. White, who now undertake duties at the head office.

Miss Prebble terminated her engagement as part-time clerk at the Ashford Dispensary as from April 15th, 1921, and for the present the duties are being undertaken by Mr. Smither, the clerk at Lenham Sanatorium. This will facilitate the work, inasmuch as the tuberculosis officer is the assistant medical officer of the sanatorium.

The following tabular statements shew various details relating to classification of patients, diagnosis, work of dispensary, institutional treatment, &c. ;—



Table 7.—Shewing Occupations of New Patients who received treatment during 1921.

Occupations.	Insured.		Uninsured.		Totals.	
	Pul.	Non-Pul.	Pul.	Non-Pul.	Pul.	Non-Pul.
MALES.						
Agents, including Travellers, Collectors, &c.	15	—	5	—	20	—
Attendants of all kinds .....	12	2	3	—	15	2
Building Trades, including Painters, Decorators, Carpenters, Joiners, Plumbers, &c. ...	19	1	1	—	20	1
Carmen, including Chauffeurs, Motor Men, Carriage Drivers, Engine Drivers, &c. ....	15	1	2	—	16	1
Clerks, including Secretaries, Valuers, Reporters, &c.....	30	3	5	1	36	4
Domestic Servants, including, Butlers, Coachmen, Gardeners, Stewards, Caretakers, Footmen, &c. ....	8	1	1	—	9	1
Engineers, including Instrument Makers, Tool-makers, &c. ....	25	—	1	—	26	—
Factory and Mill Workers, including Paper-makers, Leathermakers, &c. ....	13	1	—	—	13	1
Labourers of all kinds, both skilled and unskilled .....	98	5	3	1	101	6
Mechanics, including Boilermakers, Engine-makers, Brass Finishers, &c. ..	17	—	—	—	17	—
Miners.....	2	—	—	—	2	—
Musicians, including Pianoforte Tuners, &c.	1	—	—	—	1	—
Postmen, Policemen, Firemen, &c.....	4	—	2	—	6	—
Printers, including Compositors, &c.....	3	—	—	—	3	—
Railway Workers, including Carriage Cleaners, Repairers, Platelayers, &c. ....	16	1	—	—	16	1
School children and children under school age	—	—	133	164	133	164
Shipwrights, including Ship Fitters, Ship Riggers, Cableworkers, &c. ...	5	—	—	—	5	—
Shopkeepers and Shop Assistants .....	25	3	3	—	28	3
*Soldiers and Sailors, including Ex-soldiers and Ex-sailors ..	157	13	17	—	174	13
Stokers ..	1	—	—	—	1	—
Tailors and Allied Tradesmen.....	3	—	—	—	3	—
Teachers .....	1	—	2	—	3	—
Tradesmen, including Butchers, Bakers, Dairymen, Grocers, &c. ....	8	1	1	—	9	1
Watermen, including Bargemen, Lightermen, Seamen &c. ....	5	—	2	—	7	—
Unknown, various or of no occupation .....	51	3	15	11	66	14
Total Males .....	534	35	196	177	730	212
FEMALES.						
Clerks ..	19	—	1	—	20	—
Domestics, including Housewives, Cooks, Nurses, &c.....	104	16	264	14	368	30
Factory Workers .....	16	1	2	—	18	1
Laundresses .....	15	—	1	—	16	—
Printing Trades.....	3	—	—	—	3	—
School children and children under school age	—	—	130	137	130	137
School Teachers.....	1	1	4	1	5	2
Shop Assistants .....	22	2	2	—	24	2
Tailoresses, including Dressmakers .....	5	1	1	—	6	1
Unknown or of no occupation... ..	6	4	35	11	41	15
Various .....	8	—	6	2	14	2
Total Females .....	199	25	446	165	645	190

\* In whose cases tuberculosis was considered to be attributable to War Service.

TABLE 8.—Showing the Age Classification of New Patients who received treatment during 1921.

Age.	Insured.		Uninsured.		Total.	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1-5	—	—	11	50	11	50
5-15	—	—	245	243	245	243
15-25	272	31	82	36	354	67
25-35	255	18	128	6	383	24
35-45	134	8	108	3	242	11
45-55	58	2	49	2	107	4
55-65	13	1	15	2	28	3
65-75	1	—	4	—	5	—
Totals ...	733	60	642	342	1,375	402

TABLE 9.—Annual Return shewing the work of the Dispensaries during the year 1921. (A) In relation to Diagnosis:—

Number of			Under Observation pend- ing diag- nosis on Jan. 1st.	Apply- ing for the first time during the year.	Total.	Found to be		Under observa- tion pending diagnosis on Dec. 31st.	Ceased attend- ance before comple- tion of diagnosis		
						Suffering from Tuberculosis.				Not suffer- ing from Tuber- culosis.	
						Pul- monary	Non- Pul- monary				
(a)  All persons (including "Contacts")	Adults.	M.	79	979	1,058	578	43	328	81	28	
		F.	122	936	1,058	469	45	384	136	24	
	Children. *	M.	262	791	1,053	102	161	579	171	40	
		F.	313	732	1,045	137	129	554	189	36	
	Total ..			776	3,438	4,214	1,286	378	1,845	577	128
(b)  "Contacts" (included in (a) )	Adults.	M.	7	68	75	23	2	45	5	—	
		F.	28	202	230	63	6	136	23	2	
	Children. *	M.	102	266	368	35	57	212	58	6	
		F.	122	318	440	64	44	265	61	6	
(c)  Insured persons (included in (a) )			M.	63	829	892	505	33	282	55	17
			F.	22	348	370	205	21	112	26	6

\* Under 15 years of age.



B.—Dispensary Treatment and General Supervision (including “Domiciliary” Cases.)

Number of Patients.	Pulmonary.				Non-Pulmonary.			
	Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under treatment or supervision on January 1st .. ...	1671	825	233	204	137	131	287	283
Coming for the first time under Public Medical Treatment	572	468	93	92	51	48	142	118
Resuming Public Medical Treatment	26	20	9	8	2	2	11	12
Transferred from Residential Treatment or from other Areas ... ..	183	97	14	23	15	15	15	10
Total ... ..	2452	1410	349	327	205	196	455	423
Discharged as no longer requiring either treatment or supervision .. ...	284	164	73	66	41	51	102	82
Transferred to Residential Treatment or to other Areas	218	124	25	26	18	17	25	19
Leaving Public Medical Treatment ... ..	59	47	20	18	9	8	19	10
Lost sight of ... ..	65	55	8	2	9	6	20	11
Died , .. ...	262	138	6	20	9	4	6	3
Remaining under treatment or supervision on December 31st	1564	882	217	195	119	110	283	298
Total ... ..	2452	1410	349	327	205	196	455	423

ANNUAL RETURN SHOWING THE WORK OF KENT COUNTY COUNCIL TUBERCULOSIS DISPENSARIES.

Number of persons placed during the year under observation for the purpose of diagnosis .....	1,008
Number of cases in which the period of observation exceeded two months .....	407
Number of consultations with medical practitioners (a) at the homes of the patients and (b) at the dispensaries ( <i>Insured</i> ) .....	(a) 126 (b) 81

Number of consultations with medical practitioners (a) at the homes of patients and (b) at the dispensaries ( <i>Uninsured</i> ) .....	(a)	133
	(b)	55
Number of other visits paid by tuberculosis officers to the homes of patients.....		635
Number of visits paid by nurses to the homes of patients for dispensary purposes .....		6,347
Number of attendances of patients at the dispensaries...	{ (Insured)	17,333
	{ (Uninsured)	18,903
Number of patients under domiciliary treatment during the year ...		1,331
Number of reports received in respect of patients under domiciliary treatment .....		1,437
Number of specimens of sputum examined in connection with the work of the dispensaries .....		1,222
Number of opinions requested by (and given to) general practitioners by letter .....		1,445

TABLE 10.—RESIDENTIAL INSTITUTIONS. (A) Approximate allocation of beds :—

	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
	Sanatorium Cases.	Advanced Cases.	Diseases of Bones&Joints	Other conditions.	
Adult Males ...	*109	40	16	5	170
,, Females ..	48	30	13	3	94
Children under 15	30	5	33	16	84
Total ..	187	75	62	24	348

\* Includes thirty patients receiving treatment and training.

(B) Annual Return shewing the extent of residential treatment during 1921 :—

		In Institutions on Jan. 1st.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31st
Number of Patients	Adults M.	205	358	366	33	164
	,, F.	102	263	245	17	103
	Children M.	27	50	45	2	30
	,, F.	37	45	49	4	29

The full list of institutions to which patients are sent, is included in each quarterly report of the County Medical Officer. A report on the work of the county sanatorium at Lenham is contained on pages 42 to 51 of this report.



TABLE 11 —Annual Return shewing the immediate results of treatment of patients discharged from Residential Institutions during the year 1921.

		Duration of Residential Treatment.													
		Condition at time of discharge.	Under 3 months.			3-6 months.			6-12 months.			More than 12 months.			Total.
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis.	Class A.*	Quiescent .....	16	7	3	17	18	4	5	3	8	1	...	...	82
		Much improved.....	31	25	3	66	34	6	10	13	15	...	1	1	205
		No material improvement	7	20	6	14	10	2	2	6	...	1	1	...	69
		Died in Institution .....	7	3	2	2	4	...	1	2	...	...	...	...	21
	Class B.* Group 1.	Quiescent .....	3	...	...	7	2	...	1	1	...	1	...	...	15
		Much improved.....	7	3	...	15	8	1	4	6	...	...	...	...	44
		No material improvement	5	1	...	1	1	...	2	1	...	...	...	...	11
		Died in Institution .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Class B.* Group 2.	Quiescent .....	...	...	...	2	...	...	...	1	...	...	...	...	3
		Much improved.....	16	1	...	26	9	...	10	5	...	...	...	...	67
		No material improvement	4	11	...	20	7	...	7	2	1	...	...	...	52
		Died in Institution .....	4	1	...	1	...	...	1	...	...	...	...	...	7
	Class B.* Group 3.	Quiescent .....	...	...	...	...	...	...	...	...	...	...	...	...	...
		Much improved.....	3	...	...	3	5	...	2	2	...	...	...	...	15
		No material improvement	16	11	...	15	5	...	2	2	...	...	2	...	53
		Died in Institution .....	8	5	...	7	2	...	2	...	...	...	1	...	25
Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent .....	1	...	...	...	2	2	...	2	...	...	...	4	11
		Much improved.....	6	3	5	3	2	10	5	2	3	2	1	3	45
		No material improvement	2	1	2	2	...	2	...	...	...	...	1	1	11
		Died in Institution .....	...	...	...	...	...	...	...	...	2	...	...	...	2
	Abdominal.	Quiescent .....	...	...	...	1	...	...	...	...	...	...	...	...	1
		Much improved.....	...	...	...	...	...	2	...	1	...	...	...	...	3
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution .....	...	...	...	...	...	...	...	...	1	...	...	...	1
	Other Organs.	Quiescent .....	1	1	...	...	1	...	...	1	...	1	...	...	5
		Much improved.....	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Peripheral Glands.	Quiescent ..	...	...	2	...	...	...	...	...	1	...	...	1	4
		Much improved.....	...	1	3	...	...	1	...	1	2	...	...	1	9
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals .....			137	94	26	202	110	30	54	51	33	6	7	11	761

\* Class A.—Cases in which tubercle bacilli have never been demonstrated.  
\* Class B.—Cases in which tubercle bacilli have been found. (Group 1.) Cases with slight constitutional disturbance, if any; (Group 3) Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, and with little or no prospect of permanent improvement; (Group 2) Other cases.

TABLE 12.—Annual Return shewing condition of patients whose records are in possession of the dispensaries. (A) Pulmonary.

Condition at the time of the last record made during the year to which the return relates.			Class A*	Class B.			
				Group 1*	Group 2*	Group 3*	Totals. Class B)
Disease arrested	{	Adults Male	757	104	33	1	138
		Children Female	666	53	19	—	72
	{	Children Male	316	6	—	—	6
		Children Female	245	—	1	—	1
Included above, but lost sight of	{	Adults Male	261	25	9	—	34
		Children Female	281	10	4	—	14
	{	Children Male	128	3	—	—	3
		Children Female	71	—	1	—	1
Disease not arrested	{	Adults Male	1672	211	379	172	762
		Children Female	1246	77	178	114	369
	{	Children Male	328	5	4	—	9
		Children Female	273	3	2	1	6
Included above, but lost sight of	{	Adults Male	473	37	94	36	167
		Children Female	479	16	60	39	115
	{	Children Male	79	—	—	1	1
		Children Female	55	1	—	2	3
Dead .. ..	{	Adults Male	960	42	200	674	916
		Children Female	550	24	67	336	427
	{	Children Male	46	—	1	4	5
		Children Female	50	—	1	9	10
Totals ... ..			7109	525	885	1311	2721

Patients who have left the County are not included in the above return.  
\* See footnote to Table 11.

(B) Non-Pulmonary.

Condition at the time of the last record made during the year to which the return relates.			Bones and Joints.	Spinal.	Other Organs.	Peri- pheral Glands.	Total.
Disease arrested	{	Adults Male	54	4	19	36	113
		Female	50	28	16	62	156
		Children Male	46	34	28	433	541
		Female	60	28	9	401	498
Included above, but lost sight of	{	Adults Male	15	1	6	11	33
		Female	17	17	5	18	57
		Children Male	11	6	6	211	234
		Female	18	9	3	184	214
Disease not arrested	{	Adults Male	123	9	30	18	180
		Female	87	21	29	35	172
		Children Male	85	42	18	266	411
		Female	69	26	22	271	388
Included above, but lost sight of	{	Adults Male	29	1	10	9	49
		Female	26	7	10	14	57
		Children Male	23	10	6	95	134
		Female	20	8	6	85	119
Dead ... ..	{	Adults Male	20	5	14	4	43
		Female	9	5	8	3	25
		Children Male	6	19	21	7	53
		Female	10	14	12	4	40
Totals ... ..			619	235	226	1540	2620

Patients who have left the County are not included in the above return.



Various matters of organisation, including details of co-operation with sanitary authorities, medical practitioners and various bodies, were set out in my last report, and it is unnecessary to repeat them here.

An arrangement has been made with all the institutions to which Kent patients are sent, to transmit notifications of cases to local medical officers of health through the County Medical Officer, in order that special attention may be drawn to the necessity for disinfecting rooms vacated by patients.

Special attention is paid to the examination of contacts, and the total number coming under the supervision of the dispensaries during the year was 1,113. Of these, 294 were found to be tuberculous, and 147 were under observation pending diagnosis at the end of the year.

The nurses devote the fullest amount of time possible to the visitation of patients, paying particular attention to ex-service men. A total of 6347 visits was paid during the year and the aggregate amount of time devoted to the work is equal to approximately six whole-time nurses. The staff is not sufficient, however, to undertake that adequate supervision which is desirable, and it is hoped that the Ministry of Health will soon be in a position to approve the appointments of two additional nurses which were sanctioned by the County Council at the end of 1920, but which the Ministry were unable to approve at that time owing to the need for economy.

The following table shows the results of bacteriological work each year since the commencement of the tuberculosis scheme :—

Year.	Specimens of sputum examined.	Percentage positive.	Year.	Specimens of sputum examined.	Percentage positive.
1912 .....	362	37%	1917 .....	1948	25%
1913 .....	882	30%	1918 .....	1831	25%
1914 .....	1539	33%	1919 .....	2075	23%
1915 .....	1831	29%	1920 .....	2714	23%
1916 .....	2100	26%	1921 .....	2571	25%

Twenty-five ex-service men were admitted to institutions for combined treatment and training during 1921, and at the time of writing it is expected that the section established at Lenham Sanatorium for the combined treatment and vocational training (in furniture repairs and house repairs) of tuberculous ex-service men, will be commenced within a few weeks.

Facilities for the X-ray diagnosis and treatment of tuberculosis have recently been extended to various hospitals in the county.

As from May 1st, 1921 (the date of termination of Sanatorium benefit) the provision of dental treatment and ancillary nourishment was extended to uninsured persons.

From January 1st to April 30th, 1921, one hundred and forty-five orders for ancillary nourishment were issued by the Insurance Committee for insured persons only. From May 1st to December 31st, four hundred orders were issued by the County Council (both insured and uninsured patients being included) making a total of five hundred and forty-five orders issued during the year, divided in the following scales:—

“A” 1 pint of milk per day .....	8
“B” 1 pint of milk and 1 egg per day .....	94
“C” 1 pint of milk and 1 egg per day, and $\frac{1}{2}$ lb. butter per week...	443
	— —
	545
	— —

Dental treatment, with the provision of new dentures in many instances, was provided in ninety-seven cases. Up to the present the treatment has been given by local qualified dentists, who quote prices for the treatment required by individual patients. The question of the utilisation of the whole-time school dental staff has been considered, but was postponed owing to various difficulties, including the matter of the provision of new dentures. The matter will be reconsidered very shortly, and it is hoped to proceed with a scheme which will include the appointment of another dentist on the school staff, all the members of whom will give part of their time to dealing with tuberculous patients.

Surgical appliances and apparatus are provided on the recommendations of the tuberculosis officers and the following were supplied during 1921:—Air cushion 1, spinal jackets 17, repairs to spinal jackets 4, hip splints 7, knee splints 2, surgical boots 3, crutches 7 pairs, metal pattens 4, hand and forearm splint 1, water bed 1, canvas belt 1, male urinal 1, Phelps corsets and spinal board 1, spring for drop foot 1, repairs to abdominal belt 1.

The eighty-seven shelters provided by the County Council are generally in constant use by patients who are able and willing to sleep out of doors, and by this means many patients are enabled to sleep apart from other members of the family.

#### DISPENSARY WORK.

The following are extracts from the annual reports of the tuberculosis officers for 1921, and I should here mention that each officer speaks in high terms of the work of the nurses and dispensary clerks:—

DR. MARTIN:—“Those who have had the longest clinical experience of tuberculosis are the first to admit that it is frequently not by any means an easy matter to decide whether an adult is or is not suffering from early pulmonary tuberculosis, but owing to differences in the manifestation of the disease the question becomes considerably more difficult in the case of children.



The intelligent interpretation of physical signs and symptoms is usually an efficient criterion in adult cases, but in children, X-rays are almost as useful as the stethoscope, as a means of diagnosis. The absence of free and immediate access to the former makes for unduly prolonged observation in many juvenile cases.

“Tuberculin may be used as an aid to diagnosis, but, except in the case of infants, it gives no guarantee as to the presence of active disease and the consequent need of treatment.

“Sanatorium treatment is only intended for the treatment of early disease, and it is gratifying to note that the results obtained by this treatment in such cases, including the sputum positive, has been good.

“With regard to post-sanatorium life, the main difficulty experienced has been in obtaining suitable work for patients. Nevertheless it is surprising to find how well many have fared in the competition for work at the present time of widespread unemployment.

“There appears to be a tendency towards the revival of the heresy that does not admit the certainty of pulmonary tuberculosis until tubercle bacilli are demonstrated in the sputum. It has been established beyond a doubt by post mortem findings, that pulmonary tuberculosis may exist both in cases which have never had sputum, and those in which repeated bacteriological examinations of the sputum have given a negative result. One has often been informed by patients who have been under observation elsewhere that they have been considered free from tuberculosis as bacilli had not been demonstrated in their sputum. In some of these instances an early curable case has thereby been allowed to slip into an advanced state before treatment was considered, and moreover they have quite probably been a source of infection to others.”

DR. GAFFIKIN :—“The question of housing is still an urgent one, and the consequent strain upon institutional resources, particularly for the advanced cases, is still great. While isolation of the advanced cases is very desirable, I find it difficult to induce patients and their friends to accept institutional treatment when there is little or no hope of cure. Further education of the public as to the desirability of isolation is necessary.

“A small number of ex-soldiers have received training under the scheme of the Pensions Ministry for the combined treatment and training of these men. The chief difficulty seems to be to select the right type of men for training. I am strongly of opinion that admission to such training colonies should be on probation, and a continuance of treatment and training should depend on the patient's proved physical and mental suitability.

“At present I am conducting an investigation into the treatment of tuberculous adenitis by means of an extract of the infected tissue which, after filtration and sterilisation, is used as a specific autogenous tuberculin. I have to thank Dr. Ponder for his assistance in the preparation of the extracts, and while it is early to speak of results, the investigation is interesting and distinctly promising.”

DR. GRABHAM :—“A large number of children have attended for observation or treatment. I am convinced that this branch of the work is of great benefit to the rising generation.

“Patients admitted to institutions have usually improved whilst away. Many patients relapse on return to their home conditions, and often those who return in good condition, with apparent arrest of disease, become worse again through being unable to find any suitable work. Not only do they suffer from want of sufficient nourishing food, which they cannot afford to buy unless at work, but want of occupation leads to introspection and lack of physical vigour. Even men discharged from a training colony cannot find work, as they have not the money to set up for themselves, and they can find no one to employ them.

“The provision of beds for advanced cases should do much to prevent the spread of the disease.

“The housing question is still acute. Several patients and their families have moved into the new council houses, but in some cases objections have been raised and many patients are unable to pay the comparatively high rent of these houses.

“In one sanitary district I have been co-operating with the medical officer of health in tracing the present condition of all notified cases of tuberculosis. I believe it is intended to extend this enquiry to other districts.”

DR. HILLS :—“Patients are becoming more educated as to the means taken for their good, and are not so prone to rely upon the supply of medicine, but appreciate that the advice given is equally if not more important, and that the reason for sanatoria is not so much to effect a cure of disease, as to educate them during the period of their residence there into the measures they are to carry out when they return to their homes.

“There are now eight nurses employed in visiting tuberculous patients in the various districts of this area. This multiplication of nurses, I believe, has led to better visiting and results, although it means a great increase in clerical work, both for myself and the office staff. Increased efficiency is shown by the greater numbers of visits paid during the year, and these numbers do not by any means represent the increased amount of good that



has been carried out by the nurses. Nurses and voluntary helpers have assisted in securing the continued examination of contacts. Examination of contacts, even if negative, does not mean that they are lost sight of, as they are kept under observation in case they should show signs of disease later on. Another useful extension of the nurses' work was found in the provision of nursing appliances, chiefly air cushions, of which a small number are now kept at the central dispensary for the area and are available on loan through the nurse when required.

“At the dispensaries the patients have been approached regarding their willingness to be visited by voluntary assistants. The prejudice which has up to the present existed is, I think, showing signs of being overcome, and I hope shortly to be able to organize the voluntary helpers into district committees. On each committee I propose to ask the services of the local medical officer of health and also the tuberculosis nurse. The nurse's services on the committee I regard as especially necessary, as with her knowledge of the cases additional assistance could be directed to those where additional visiting would be of help to her; this would also avoid over-lapping and worry of the patients. The activities of these district care committees will, I venture to think, be best directed in the following channels:—

“Visiting under supervision and with co-operation of the nurse; the boarding-out of children whose parents are sent to sanatoria; and provision of clothing outfits for patients going to sanatoria, but unable to provide the same.

“The last item will require the raising of funds, which no doubt can be done by means of sales or whist drives, or any other means that suggests itself to members of the committee.

“Much good work regarding cases of tuberculous disease of the bones and spine has been achieved during the year, and I am greatly indebted to Mr. Todd, Orthopædic Surgeon at the Royal West Kent Hospital, who has at all times given me great assistance with his advice, diagnoses and treatment of a number of patients. I have also been able to assist him and other consultants at the hospital frequently during the year.”

DR. DE VILLIERS:—“A large and quite unnecessary amount of work is caused by visitors to Thanet who attend the dispensaries merely to compare the diagnosis of the tuberculosis officer with that of their own tuberculosis officer or private doctor; or to obtain some medicine free of charge. These give considerable and uninteresting work to clerk, nurse and tuberculosis officer, since they very soon leave the area and do not even trouble to notify their departure.

“In general the behaviour of pulmonary cases is rather erratic and gives a considerable amount of anxiety and trouble. A case never becomes an ‘old case,’ but is always evincing new and unexpected phases. I hope to be able to study these phases and to evolve some kind of opinion as to their nature and causation.

“The new dispensary at Margate has fully justified its existence, not only by relieving the crush at Ramsgate, but by attracting a very large number of cases who would otherwise never have come within the dispensary organisation.

“Practically all patients on domiciliary treatment visit the dispensaries every three or six months for examination and advice, and are thus kept under efficient control. This is especially encouraged and advised since the nurses have not enough time for frequent visitation.”

DR. CLEMENTS. — “During the year there were eleven families with two or more cases of tuberculosis. The following is a brief summary of these cases. Instances of two or more cases of surgical tuberculosis in a family are not included. I have selected those where there was a pre-existing case of open pulmonary tuberculosis which was supposed to be the infecting case.

1. Mrs. F., aged 40, an old case of pulmonary tuberculosis. Her child aged three years, developed tubercular glands.
2. K.C., a young woman, aged 20, developed pulmonary tuberculosis early in 1921, and was sent to a sanatorium for three months. Her sister, aged 23, developed the disease towards the end of 1921.
3. F.B., aged 22, suffering for two years from pulmonary tuberculosis. His sister, aged 31, who was constantly attending him developed the disease in August, 1921. Another sister was under observation as a suspected case of phthisis at the end of the year.
4. Mrs. R., an advanced case of pulmonary tuberculosis, was nursed and attended by Mrs. M. during the latter end of the year 1920. Mrs. M. developed the disease in June, 1921.
5. W.R.M., died in his own house of advanced pulmonary tuberculosis on January 4th, 1921. His son, aged 22, had a pulmonary hæmorrhage in April, 1921.
6. Mrs. C., developed pulmonary tuberculosis in 1921, which ran a rapid course to a fatal issue. Her little girl aged seven years is now suffering from tubercular glands of the neck.
7. Mrs. H., aged 24, attended the dispensary in August, 1921, with extensive pulmonary disease. She had never been ill until June,



1921. Her sister who lived in the same house and who attended her has since suffered from pleurisy which was diagnosed tubercular.

8. H.P., aged 28, developed pulmonary tuberculosis in 1920 and had a six months' course of sanatorium treatment. His sister, aged 15, is now suffering from pulmonary tuberculosis and a younger brother, aged six, is under observation for debility and ? tubercular peritonitis. (There are several branches of this family in the district and their history in relation to tuberculosis is extremely bad. Many deaths have occurred amongst them from the disease during the last fifteen years.)
9. C.H., aged 53, first notified and seen by me in October 1921. He was then in an advanced stage of pulmonary tuberculosis and died a short time afterwards. At the time of my visit his wife was an early case of phthisis, and a child aged four was suffering from tubercular glands.
10. A.J.S., an ex-soldier, aged 22, was discharged from the army 18th July, 1920, disabled by wounds. Six months later he developed pulmonary tuberculosis and died 6th August, 1921. His father, C.W.S., aged 70, died of pulmonary tuberculosis on the 10th January, 1922, and the date of onset in his case was towards the end of 1920 or beginning of 1921. He persisted in sleeping with the son referred to above. Another brother, A.W.S., aged 30, is under treatment at the dispensary for pulmonary tuberculosis which commenced in April, 1921, with pleurisy and effusion.
11. J.H., aged 22, was discharged from the army in 1917 suffering from pulmonary tuberculosis and he died in January, 1922. His mother developed tubercular peritonitis in 1920 from which she died on 26th August, 1921.

“During the year there were seventy-three new cases of tuberculosis which came under treatment or supervision and it is in connection with these that the above instances of secondary infection have been taken. As a rule the secondary cases were intimately associated in the house with the supposed infecting case and the large majority were probably instances of bed-room infection.

“The infective power of tuberculosis is usually regarded as being of very low degree as compared with the acute infectious diseases, and it is supposed that there must be intimate exposure over a long period before infection can take place. Some even discount infection altogether and consider it a very minor factor in the incidence and spread of tuberculosis, while others put forth

arguments to show that infection with small doses in early life confers a considerable amount of protection and leads to a reduction in the incidence of the disease. These problems of infection, heredity, resistance and mass dosage, are very difficult to appraise at their true value, as there are so many influences that have to be considered in every individual case.

“It may be of interest to compare from another aspect the infectivity of tuberculosis with that of such highly infectious diseases as scarlet fever and diphtheria. If we endeavour in a community where the latter are endemic to trace every notified case to a previous case of the disease, we find that the proportion of cases which can thus be traced is not as great as might be expected. In this respect our efforts to trace tuberculosis to previous human cases of the disease are probably as successful as in the diseases mentioned. Again, if we take the number of secondary cases of scarlet fever or diphtheria which we meet with in infected houses we will find that they do not outnumber the secondary cases of tuberculosis, when due allowance is made for time in these diseases, in the one case a period of weeks in the other often a number of years.

“It may be said that cases of scarlet fever and diphtheria are removed to the isolation hospital as soon as notified or are isolated in their own homes, and that this measure prevents secondary cases. If it does, it is only to a small extent and many epidemiologists agree that hospital isolation has not modified to any degree the incidence of these diseases. Further, when a case of tuberculosis is notified an attempt is made to carry out home isolation so far as the circumstances of the home will permit, and instructions are given to prevent ‘spray’ infection and how to dispose of the sputum.

“Such considerations as these would tend to place the infective power of tuberculosis much higher than that usually allotted to it. The infectivity of tuberculosis should not be under-rated. Every open case of pulmonary tuberculosis is, under the ordinary conditions of life in working-class homes, a grave danger to those with whom he comes in contact. In small tenement houses which are usually occupied to their fullest capacity, it is difficult to see how cases can be nursed in these homes with safety to the inmates. The only effective way of dealing with such cases would appear to be removal to an institution.”

#### LENHAM SANATORIUM.

Dr. Sandiland has assisted me by writing the following report:—

(The classification used throughout this report is the same as that used last year—the Turban-Gerhardt method.)

The sanatorium has been open for the reception of 125 cases (seventy-five male and fifty female) throughout the year 1921.



During this period, 297 patients have been admitted, of whom 177 were males and 120 were females. Of the males 104 were ex-service men.

There were six deaths during the year—three men and three women.

The average stay for female patients was 133·3 days, and for male patients 131·7 days. This is an average stay of about eighteen weeks for each patient.

DURATION OF TREATMENT.

Duration in Weeks.	Under 4.	4—8.	8—12	12—16.	16—20.	20—24	Over 24.	Total.
Males .....	8	10	24	42	32	18	46	180
Females ...	8	6	13	21	20	13	40	121
Total ...	16	16	37	63	52	31	86	301

The usual recommendation for a case is thirteen weeks' sanatorium treatment in the first place, with usually an extension of from four to six weeks, making seventeen or eighteen weeks in all. When, however, one analyses the type of case one generally gets in a sanatorium—the individual powers of resistance of each patient and other factors—it is obvious that a hard and fast rule of giving only thirteen weeks to each case would reduce the value of sanatorium treatment as a curative agent, and this is one of the reasons why institutional treatment is sometimes considered of doubtful value by the general public. If it is decided to utilise sanatoria chiefly as an educational factor in the campaign against tuberculosis, and as a method of temporarily patching up an individual as is suggested in Circular 288 of the Ministry of Health, then it is only fair that this policy should be widely known, so that sanatoria should not receive adverse criticism for reasons over which the medical superintendents of such institutions have no control.

Sixteen patients left the sanatorium before the completion of four weeks' treatment. Most of these went for domestic reasons, or because they did not conform to the rules and regulations which are part of a sanatorium régime.

TREATMENT.—The essential part of the treatment, as explained to each patient, is the regular rest hours, the regular meals, and the open-air conditions under which the patient must live.

The graduated walks and graduated labour form a second part of the régime. These are chiefly used as a test of the capacity of the patient to stand auto-inoculations from his own lung lesion, and as a hardening process in the later stages of treatment.

Graduated walks and labour may easily be pushed too hard with a view to producing stimulating auto-inoculations, with the result that unfortunate relapses occur, or the patient is led into the way of thinking that he can "walk himself" into health, with the result that his health may suffer.

Therefore more good is done by the rest hours and hygienic conditions of life than by the double-edged weapon of varying doses of poison produced by insufficiently controlled bodily activity.

By controlling the exercise daily, instead of weekly, as is so frequently done at many sanatoria, one will often find that a variation of one-fifth of a degree in the morning or evening temperature, especially if on a continuous ascending scale for three days in succession, is of importance and will give one timely warning of excessive auto-inoculation. Measured walks are mapped out, and patients are instructed as to the rate at which to walk.

Rest hours are a very essential part of the treatment and are carefully enforced.

The patients lie on their rest-chairs or beds, under open-air conditions, from 9 a.m.—10 a.m., 11.45 a.m.—12.30 p.m., 3.45 p.m.—4.30 p.m., and 6 p.m.—7 p.m.

Graduated work ranges from potato peeling, cleaning windows and brasses, and light gardening, up to heavy digging for four-and-a-half hours a day.

An X-ray apparatus has been installed. The dampness of the climate makes its use rather difficult during the winter months, but many patients have been screened as a diagnostic measure, and with its help they have been placed on pneumothorax treatment.

The assistant medical officer gave a series of lectures on anatomy and physiology to probationers during the winter, and the medical superintendent has given two series of lectures on tuberculosis to all the patients. Short talks are also given to the male patients about twice a week on certain points arising out of the treatment and life of a consumptive.

The dangers of infection through sputum, and their prevention, are emphasized in these short lectures.



RESULTS OF TREATMENT.

WEIGHT.

Increase in lbs. ....	1—5.	5—10.	10—15.	15—20.	Over 20.
Males.....	42	59	28	5	4
Females.....	22	36	20	8	3
Percentage Showing Increase .....	{ Males 76 % Females 73 % } 75 %				
Weight Stationary ..	{ 7 Men 3·9 % 14 Women 11·6 % } 7 %				
Weight Lost .....	{ 32 Men 17·0 % 15 Women 12·5 % } 14·7 %				

The above table will show the effects of treatment on the weights of patients.

Gain in weight, though of significance in the treatment of the disease, must be carefully analysed in each case. The more below par the patient is on admission the greater will be his gain in weight should his condition improve.

A great gain in weight is not of great value to a patient if at the end of a long course of treatment at a sanatorium his disease is so active that he is still unable to do light work without a rise of temperature.

The regular and large meals and the regular rest hours assist the patient to gain weight, but this weight must be largely worked up into muscle to become permanent; otherwise it will be found that a patient will lose it, on leaving the institution, more quickly than he gained it.

Persistent loss of weight is a bad feature—it is sometimes accompanied by a rapid pulse, or a rise of temperature at some time in the evening which may not at first be discovered by the routine record taken at 5 p.m.—such cases are frequently found to be going downhill, surely if slowly.

The weight of a fairly well nourished patient, with early disease, on admission, even if his lung condition improve steadily, may remain stationary or increase very little, and this is not a bad feature provided his general condition improve.

WORKING CAPACITY OF PATIENTS ON DISCHARGE AS COMPARED WITH  
WORKING CAPACITY ON ADMISSION.

Group.  With Reference to Extent of Disease.	Patients with Negative Sputum.						Patients with Positive Sputum.					
	Full working capacity.		Fit for light work.		Unfit for work.		Full working capacity.		Fit for light work.		Unfit for work.	
	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.
(i.) Males .....	—	18	26	18	18	9	—	—	—	—	2	1
Females .....	1	23	27	6	4	5	—	—	2	—	—	1
(ii.) Males .....	—	9	18	26	19	7	—	—	11	5	5	6
Females .....	—	13	15	12	15	6	—	—	3	1	7	6
(iii.) Males .....	—	4	6	17	27	24	—	—	—	5	45	28
Females .....	—	2	—	12	16	10	—	—	—	4	28	17

Of all the admissions, only one woman could be said to be capable of carrying on hard work, and roughly 63 per cent. of all the admissions were unfit for work.

On discharge, roughly 23 per cent. were capable of carrying on hard work (and these all had negative sputum), roughly 36 per cent. were fit to carry on light work, and nearly 41 per cent. were still unfit for work.

When we analyse the above table more, however, we find that with Group I. cases (that is those cases with a reasonable chance of a good result from sanatorium treatment) forty-one out of eighty such cases admitted were fit for hard work on discharge—that is 51·25 per cent.

Of Group II. cases, twenty-two out of ninety-three such cases admitted were fit or work on discharge—that is 23·6 per cent.

Of Group III. cases, six out of 122 such cases admitted were fit for work on discharge—that is roughly 5 per cent.

To contrast men with women—

	Men.	Women.	
Of Group I. cases .....	39 per cent.	67·6 per cent.	} became fit for work.
Of Group II. cases .....	17 per cent.	32·5 per cent.	
Of Group III. cases ...	5 per cent.	4·5 per cent.	

In other words, the earlier the stage of disease on admission the greater the chance of recovering full working capacity.



The women, on the whole, do better than the men—the chief reasons being that, as a rule, they stand the restrictions of sanatorium life better and can, therefore, carry out the treatment better than men, their work on discharge has not got to be so arduous as that of the men, and that the types of cases admitted on the female side have been, on the whole, better than those admitted to the male side.

SPUTUM.

Sex.	— On admission.	— On admission.	+ On admission.	+ On admission.
	— On discharge.	+ On discharge.	— On discharge.	+ On discharge.
Males .....	105	6	28	41
Females ... ..	75	2	16	28
Total .....	180	8	44	69

Percentage of male admissions positive .....	32·8
Percentage of female admissions positive .....	36·3
Percentage of male positive cases becoming negative or having no sputum on discharge .....	40·5
Percentage of female positive cases becoming negative or having no sputum on discharge .....	36·3

CONDITION OF DISEASE ON DISCHARGE OF PATIENTS.

Group.		Quiescent.	Improved.	<i>In Statu Quo.</i>	Worse.	Died.	
Positive Sputum on Disch.	I.	Males .....	—	—	—	—	
		Females .....	—	—	—	—	
	II.	Males .....	—	6	3	2	1
		Females .....	—	2	—	5	—
	III.	Males .....	—	14	9	11	1
		Female .....	—	12	7	2	2
Negative Sputum on Disch.	I.	Males .....	29	11	3	—	—
		Females .....	17	10	1	3	—
	II.	Males .....	15	19	5	1	—
		Females .....	10	16	7	—	—
	III.	Males .....	3	39	8	—	—
		Females .....	4	16	3	2	2

The classification has been very strict as regards the “quiescent” class ; no case is called quiescent on discharge unless :—

- 1. There are no signs of activity on examination of the chest.
- 2. There are no signs of constitutional disturbance after doing three-and-a-half hours’ heavy work per day.

The first point that becomes apparent from the table is that quiescent cases have negative or no sputum.

In forty-seven out of a total of 180 men (in all stages of the disease) admitted the disease became quiescent	= 26 per cent.
In thirty-one out of a total of 121 women (in all stages) admitted the disease became quiescent .....	= 25·7 per cent.
Of the forty-three male Stage I. cases twenty-nine became quiescent .....	= 67 per cent.
Of the thirty-one female Stage I. cases seventeen became quiescent.....	= 55 per cent.
Of the fifty-two male Stage II. cases fifteen became quiescent ...	= 28·8 per cent.
Of the forty female Stage II. cases ten became quiescent .....	= 25 per cent.
Of the eighty-five male Stage III. cases three became quiescent .....	= 3·5 per cent.
Of the fifty female Stage III. cases four became quiescent .....	= 8 per cent.

With early stages of disease there is a reasonable chance of gaining “quiescence,” and the more advanced the disease the less is such chance.

Dental treatment is very important. Patients with bad teeth are liable to poisoning from the mouth which may retard recovery and handicap sanatorium treatment.

It would be better if the dental treatment were completed before admission, because patients always have a certain degree of relapse from the shock of many extractions.

Forty-six males and nineteen females received dental treatment during the course of their sanatorium treatment.

A visiting dentist to the sanatorium might save a good deal of travelling money and time, if the work could not be done before admission.



COMPLICATIONS :—Seven men and nine women had the disease complicated by tuberculosis of the larynx.

Other complications were :—

TUBERCULAR.		OTHER.		OTHER—continued.	
T. B. spine .....	3	Cataract .....	1	Gastritis.....	3
Glands of neck and medi-		Emphysema .....	2	Bronchitis .....	14
astinum .....	2	Stricture ..	1	Asthma .....	1
Pleural effusion ...	1	Epilepsy .....	3	Uterine polypus.....	1
T. B. knee .....	1	Tonsils .....	1	Acne .....	1
Peritonitis .....	1	Gingivitis ...	1	Dyspepsia .....	1
T. B. shoulder .....	1	Pyorrhœa .....	3	Rheumatism .....	1
Fistula in ano .....	1	Cardiac disease .....	2	Paralysis, arm .....	1
Lupus.....	2				
	—				—
	12				37
	—				—

Twelve patients had special treatment with detoxicated autogenous vaccines for secondary infections, followed by detoxicated tuberculin (Genatosan Co.). Such vaccines are treated with an acid, followed by an alkali, followed by alcohol, and the resulting vaccine is much less toxic.

Patients who were not doing well on ordinary sanatorium régime were chosen for this treatment.

The lung condition was early in three, moderately advanced in four, and advanced in five.

The above choice of cases was made because, if any special treatment is to be of value, it is needed where ordinary sanatorium treatment fails.

The secondary infections in the twelve cases were as follows :—

Pneumococcus .....	in 12
Streptococcus .....	in 11
Micrococcus Catarrhalis .....	in 7
Staphylococcus.....	in 6
Diphtheroids .....	in 5

The commonest combination was the pneumococcus with the streptococcus which occurred in eleven cases, sometimes with one or more of the others.

Tubercle bacilli were present in the sputum of seven of the above cases.

Seven cases completed a course of injections for secondary infections, one case had six doses and then stopped because of no improvement, one case had five doses and refused to have more, one case had four doses and refused more, and two cases had one dose, but developed too much reaction to continue.

Of the seven patients who went through a complete course of detoxicated vaccine treatment for secondary infections three improved markedly, three improved to a certain extent, and one showed no improvement. In five of these cases a course of detoxicated tuberculin followed.

Two of the above seven cases had been bedridden for many months previously.

The conclusions which appeared to be reasonable from the course of these few cases were :—

1. If the vaccine is going to do any good the result begins to show quickly.
2. If no improvement shows soon there is not likely to be much benefit from persistence.
3. Reactions were rare except in cases with much pyrexia or very active disease.
4. All these cases had autogenous vaccines so no conclusions could be made as to the value of stock vaccines.
5. The detoxicated autogenous vaccines appear to be of definite value in some cases, but one cannot say from the patient's clinical condition whether it is to be helpful in any particular cases or not.

**SOCIAL SIDE.**—It is important from a therapeutic point of view to endeavour to counteract the depression and boredom which so frequently result from the monotonous régime of sanatorium treatment. The psychological side of the work is, therefore, of great importance. The medical staff must not only examine chests and dispense medicines, and the nursing staff must not only mechanically nurse the patients, but both must give of the best of themselves to counteract the depression which is part of the disease. Their work is therefore, if properly carried out, most exacting.

There is one recreation-room for males and one for females. The men have a billiard table and frequent competitions are arranged. Other games are also arranged for them.

A new piano has quite recently been given to the sanatorium by the Council, and there is now one for each recreation-room.

About once a month there is a whist drive for both male and female patients, and frequent “social evenings” are held for both sexes.

Mr. Lindley Jones has presented the patients with an excellent reference library, and debates have been held during the year on different subjects.



Lectures have been given by gentlemen who have kindly visited us for that purpose—in particular

- “On Wild Birds ” ..... Rev. T. G. Lushington.
- “On Socialism ”..... Mr. Victor Fisher.

Many amateur concert parties and some professional parties have come down and entertained us throughout the year. The usual arrangement is that their transport, but not the performance, is paid for out of the canteen fund or out of the £30 allowed per annum for entertainments of all kinds.

THE CANTEEN.—In June a committee was formed, consisting of the medical officers and some of the patients, with a view to advocating and instituting a canteen for the use of patients, staff and visitors to the sanatorium. The Council kindly lent £27 to get the original stock, and the canteen was opened in August, 1921.

The venture has proved very successful, and the canteen committee was enabled to pay back the £27 to the council within five months of opening the canteen and still have some money in the bank.

Any profits go entirely towards paying for extra amusements for the patients and buying games, etc. The profits have already paid for two concerts, and also for a pianoforte cover.

The canteen has supplied a need, and up to the present has given every satisfaction.

NON-NOTIFIABLE DISEASES.

Mortality rate per 1000 of the population from measles, whooping cough and diarrhœa during the past fourteen years :—

Year.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921.	
														Kent.	England. & Wales
Measles	0·12	0·07	0·08	0·36	0·10	0·16	0·08	0·19	0·08	0·22	0·17	0·07	0·10	0·005	0·06
Whooping Cough	0·14	0·08	0·23	0·12	0·19	0·10	0·11	0·18	0·16	0·11	0·15	0·07	0·10	0·07	0·12
Diarrhœa	0·29	0·16	0·12	0·95	0·15	0·30	0·34	0·27	10·06 0·33	8·44 0·30	7·52 0·26	7·00 0·22	4·82 0·18	12·55 0·26	15·5 —

From 1916 onwards the death-rates from diarrhœa relate to children dying under two years of age per 1000 births (upper figure), and to total deaths per 1000 of the population (lower figure). The latter shows the comparison with years previous to 1916.

MEASLES.—Compulsory notification of measles lapsed at the end of 1919, but voluntary notification was in force during 1921, in Dartford (45 notifications), Folkestone (12 notifications), Herne Bay (9 notifications) and in Crayford (July to November, with 20 notifications). All teachers in the area of the Kent Education Committee have a supply of forms on which to notify to the local and county medical officers of health any definite or suspected case of the disease which occurs among the scholars. Only four schools in the area were closed for this disease as against eighty-five in the previous year.

The death-rate from the disease in Kent was the lowest that has been recorded. It will be seen from tables 29 and 30 that only five deaths resulted from measles during the year.

WHOOPING COUGH was less prevalent than in the previous year judged by the cases reported from schools, and there was a slight decrease in the death-rate, seventy-three deaths being attributed to this cause, giving a death-rate of 0·07 per 1,000.

All cases occurring among children attending the Kent Education Committee's schools are immediately notified by the teachers, and fourteen schools were closed for this cause, as against twenty-two in the previous year.

DIARRHŒA.—There was an increase in the number of deaths from diarrhœa as compared with the previous year, 270 deaths from this cause being recorded (in children under two years of age) compared with the 123 of 1920. 223 deaths occurred in urban districts and 47 in rural, and the chief mortality is noted in Bexley and Ramsgate, each with 20 deaths, in Erith with 19 deaths, in Chatham with 18 deaths, and in Penge with 13 deaths.

The increase in the number of deaths from enteritis and diarrhœa was a concomitant of the abnormal weather of the summer months, and was fairly general throughout the county, and the country. The death-rate, however, was only about a quarter of that of 1911, which was the last previous year in which we had abnormally hot weather, and I think that the activities undertaken under child welfare schemes may be regarded as playing an important part in the saving of child life.

Dr. Richmond (Dartford Rural) has made the following interesting comments:—"I believe that the extensive use of dried milk, owing to its purity, very largely contributed to the almost total absence of fatal diarrhœa during last summer, which was remarkable as being so exceptionally warm



and dry. Such summers have been invariably accompanied by an almost doubled death-rate for infants from summer diarrhœa, and yet only three or four deaths occurred from this cause. It seems to be a remarkable coincidence that these deaths were so few in such a hot season. I am convinced that our welfare clinics, at which a large majority of the babies in the district are supplied with the pure dried milk as their regular food, have been the means of saving many lives and have largely contributed to this lessened death-rate from diarrhœa. I would also suggest that this diminished mortality may partly be attributed to the fact that, in almost every village and populous centre, the roads are now tarred, with the result that dust and dirt are no longer blown about as heretofore, and bacterial poisoning of food, which causes and so fatally influences the severity of all attacks of summer diarrhœa, is not so frequent in our cottage homes."

INFLUENZA.—The mortality from influenza in the various districts is shown in tables 29 and 30 and it will be noted that the total has increased slightly, from 174 in 1920 to 261 in the year under review. It is instructive to compare this figure with the 2719 deaths in 1918 and the 815 in 1919—the product of the serious outbreak which occurred in those years.

CANCER.—Reference to the following tabulation shows that the death-rate from cancer in Kent still appears to be increasing steadily, and table 13 shews the annual death-rates in each sanitary district in the County of Kent, arranged in diminishing sequence.

Mortality from cancer during the past fourteen years :—

Kent.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
URBAN.														
No. of Deaths	648	669	676	765	783	798	842	869	851	849	923	903	929	1029
Death-rate ...	0·89	0·90	0·89	1·08	1·09	1·10	1·14	1·24	1·17	1·19	1·31	1·27	1·26	1·36
RURAL.														
No. of Deaths	281	281	276	327	324	360	348	349	357	372	385	354	420	400
Death-rate ...	0·94	0·93	0·91	1·05	1·05	1·14	1·11	1·14	1·12	1·19	1·23	1·16	1·38	1·26
TOTAL.														
No. of Deaths	929	950	952	1092	1107	1158	1190	1218	1208	1221	1308	1257	1349	1429
Death-rate ...	0·90	0·91	0·90	1·07	1·08	1·11	1·13	1·21	1·16	1·19	1·28	1·23	1·29	1·33

TABLE 13.—**Cancer Death Rates** in each Sanitary District in the County of Kent, arranged in diminishing sequence.

DISTRICT.	Average yearly death-rate of fourteen years, 1908-1921.	Death-rate, 1908.	Death-rate, 1920.	Death-rate, 1921.	DISTRICT.	Average yearly death-rate of fourteen years, 1908-1921.	Death-rate, 1908.	Death-rate, 1920.	Death-rate, 1921.
Tunbridge Wells Borough	1·64	1·35	1·88	2·16	Chislehurst Urban .....	0·88	0·62	0·46	0·57
Whitstable Urban .....	1·48	1·02	1·64	2·30	Gillingham Borough .....	0·88	0·62	0·77	1·28
Ramsgate Borough .....	1·46	1·25	1·37	1·47	Erith Urban.....	0·82	0·52	1·01	1·19
Herne Bay Urban .....	1·45	1·02	1·06	1·49	Cheriton Urban .....	0·66	0·75	1·28	0·29
Deal Borough .....	1·41	0·94	1·61	1·48	Queenborough Borough ...	0·64	1·00	0·87	1·29
Broadstairs & St. Peter's Urban	1·38	1·86	1·26	1·80	Crayford Urban .....	—	—	0·67	1·08
Sevenoaks Urban .....	1·32	1·07	1·22	1·36	All Urban Districts ..	1·14	0·89	1·26	1·36
Southborough Urban .....	1·30	1·67	1·98	1·30	Ashford, West.....	1·52	1·22	2·76	1·31
Sidcup Urban .....	1·27	1·19	1·71	1·13	Cranbrook .....	1·36	1·30	1·78	1·33
Ashford Urban .....	1·24	0·76	1·97	1·04	Hollingbourn .....	1·36	0·24	1·56	1·08
Folkestone Borough .....	1·24	0·85	1·12	1·38	Ashford, East .....	1·35	1·12	1·66	1·55
Bromley Borough ..	1·23	0·99	1·22	1·36	Elham .....	1·33	1·31	1·11	1·41
Faversham Borough .....	1·23	1·08	1·30	2·30	Bromley .....	1·23	1·77	1·40	1·45
Maidstone Borough.....	1·21	0·95	1·12	1·59	Dover .....	1·22	0·49	1·90	1·53
Margate Borough .....	1·21	1·09	1·68	1·27	Sevenoaks.....	1·20	1·13	1·25	1·55
Peuge Urban .....	1·20	0·92	1·74	0·99	Tonbridge.....	1·19	1·29	1·65	1·28
Sandgate Urban .....	1·19	0·00	1·03	1·56	Eastry .....	1·15	0·90	1·37	1·28
Beckenham Urban .....	1·17	0·94	1·40	1·31	Maidstone .....	1·14	0·79	1·63	1·72
Hythe Borough .....	1·16	1·44	1·38	1·35	Romney Marsh .....	1·12	0·79	1·50	0·67
Gravesend Borough.....	1·14	0·90	1·15	1·51	Faversham .....	1·10	1·27	1·14	1·55
Dover Borough .....	1·11	0·93	1·09	1·40	Bridge .....	1·05	0·39	1·24	1·25
Tonbridge Urban.....	1·09	0·74	1·37	1·20	Malling .....	1·05	0·78	1·16	1·19
Walmer Urban .....	1·09	0·33	0·70	1·54	Blean.....	1·04	0·84	1·36	1·21
Bexley Urban .....	1·08	0·77	1·38	1·59	Thanet .....	1·02	0·55	1·67	0·92
Sandwich Borough ...	1·08	0·32	1·53	1·91	Hoo .....	0·98	0·97	0·73	0·62
Tenterden Borough.....	1·08	0·00	0·00	1·80	Dartford .....	0·96	0·61	1·10	1·14
Rochester City.....	1·07	0·77	1·04	1·34	Strood .....	0·93	0·91	1·35	1·04
Sittingbourne Urban .....	1·06	0·66	1·45	1·70	Tenterden.....	0·93	1·03	0·72	1·23
Chatham Borough .....	1·04	0·84	1·38	1·05	Milton .....	0·87	0·83	1·34	0·72
Northfleet Urban ..	1·02	0·50	1·76	1·26	Sheppey .....	0·67	1·22	0·77	0·45
Wrotham Urban.....	1·01	0·77	1·71	1·91	All Rural Districts ...	1·12	0·94	1·38	1·26
Milton Regis Urban .....	0·95	0·64	2·47	0·93	All Urban Districts	1·14	0·89	1·26	1·36
Lydd Borough.....	0·92	0·36	0·00	0·45	Whole County .....	1·13	0·90	1·29	1·33
New Romney Borough ...	0·90	1·51	0·00	1·34					
Sheerness Urban .....	0·90	0·69	0·65	1·07					
Dartford Urban .....	0·89	0·62	0·69	1·03					



Age and sex distribution of deaths from cancer in the County of Kent during the last seven years : —

		All ages.	0-1.	1-2.	2-5.	5-15.	15-25	25-45	45-65	65 up- wards.
1915.	{ M. ..	564	2	—	—	4	5	32	240	281
	{ F. ...	701	—	—	—	3	4	70	308	316
1916.	{ M. ...	535	—	—	2	2	2	26	223	280
	{ F. ...	673	—	—	—	1	3	64	278	327
1917.	{ M. ...	536	—	1	—	2	2	28	223	280
	{ F. ...	685	—	—	2	2	—	80	311	290
1918.	{ M. ...	568	...	1	...	3	1	23	257	283
	{ F. ...	740	...	...	1	...	1	62	320	356
1919.	{ M. ..	524	...	...	...	...	1	21	239	263
	{ F. ...	733	...	1	...	1	6	63	332	330
1920.	{ M. ...	604	...	...	1	3	6	44	244	306
	{ F. ...	745	...	...	...	1	3	77	320	344
1921.	{ M. ...	637	...	...	1	...	3	31	293	309
	{ F. ...	792	1	2	...	1	4	85	335	364

It should be noted that 1921 showed the highest total of deaths from this disease, and the highest death-rate yet recorded in the county—nearly fifty per cent. higher than the rate for 1908. In round figures, one person in every 780 in the county died from this disease, so aptly termed “malignant,” and only heart disease caused more deaths.

Dr. Clements, of Beckenham, points out that “in persons over the age of 35 any organ or tissue of the body which is subject to continuous irritation or inflammation is liable to become cancerous. This indicates the importance of attending to minor ailments and the need for attending to disease or ill-health in its earlier stages and carrying out treatment until the diseased tissue or organ is restored to its normal state.”

#### VENEREAL DISEASES.

The county scheme is the same as outlined in my last annual report, and the only variation in the list of clinics and times of opening, as set out therein, is the deletion of the Saturday and Monday clinics at Canterbury.

The following are particulars of the work carried out during 1921 :—

TABLE 14.

## RETURN FOR THE COMBINED KENT CLINICS.

(1) Number of persons who, on 1st January, 1921,  
were under treatment or observation for :—

							Males.		Females.
Syphilis	...	...	...	...	...	...	328	...	152
Soft chancre	...	...	...	...	...	...	7	...	1
Gonorrhœa	...	...	...	...	...	...	351	...	79
Conditions other than venereal	...	...	...	...	...	...	23	..	11
Total							709	...	243

(2) Number of persons dealt with during the year,  
at, or in connection with, the out-patient clinics  
for the first time and found to be suffering from :—

Syphilis only	...	...	...	...	...	...	275	...	167
Soft chancre only	...	...	...	...	...	..	9	...	—
Gonorrhœa only	...	...	...	...	...	...	402	...	55
Syphilis and soft chancre	...	...	...	...	...	...	4	...	—
Syphilis and gonorrhœa	...	...	...	...	...	...	16	...	6
Gonorrhœa and soft chancre	...	...	...	...	...	...	—	..	—
Syphilis, soft chancre and gonorrhœa	...	...	...	...	...	...	3	...	—
Conditions other than venereal	...	...	...	...	...	...	189	...	90
Total							898	...	318

(3) Number of persons who ceased to attend the  
out-patients' clinics :—

(a) Before completing a course of treatment  
for :—

Syphilis	..	...	...	...	..	...	105	...	46
Soft chancre	...	...	...	...	...	...	4	...	—
Gonorrhœa	...	...	..	...	...	...	128	...	19
Conditions other than venereal	...	...	...	...	...	...	—	...	—
Total							237	...	65



(b) After completion of a course of treatment  
but before final tests as to cure of :—

Syphilis	...	...	..	...	...	...	7	...	1
Soft chancre	...	...	...	...	...	...	3	...	—
Gonorrhœa	...	...	...	...	...	...	92	...	2
Conditions other than venereal	...	...	...	...	...	...	—	...	—
Total							102	...	3

(4) Number of persons transferred to other treat-  
ment centres after treatment for :—

Syphilis	...	...	...	...	...	...	41	...	23
Soft chancre	...	...	...	...	...	...	—	...	—
Gonorrhœa	...	...	...	...	...	..	21	...	5
Conditions other than venereal	...	...	...	...	...	...	—	...	—
Total							62	...	28

(5) Number of persons discharged from the out-  
patient clinics after treatment and observation  
for :—

Syphilis	...	...	...	...	..	...	36	...	14
Soft chancre	...	...	...	...	...	...	6	...	1
Gonorrhœa	...	...	...	...	...	...	79	...	22
Conditions other than venereal	...	...	...	...	...	...	191	...	81
Total							312	...	118

(6) Number of persons who, on 1st January, 1922,  
were under treatment or observation for :—

Syphilis	...	...	...	...	...	...	427	...	238
Soft chancre	...	...	...	...	...	...	6	...	—
Gonorrhœa	...	...	...	...	...	...	440	...	89
Conditions other than venereal	...	...	...	...	...	...	21	...	20
Total							894	...	347

(7) Total attendances of all persons at the out-patient clinics who were suffering from :—

Syphilis	...	...	...	...	...	...	4720	...	3171
Soft chancre	...	...	...	...	...	..	111	...	—
Gonorrhœa	...	...	...	...	...	...	7469	...	1159
Conditions other than venereal	...	...	...	...	...	...	403	...	174
Total							12703		4504

8.—Number of doses of salvarsan substitutes given in the ;—

Out-patient clinics	...	...	...	...	...	...	...	3801
In-patient departments	...	...	...	...	...	...	...	20

TABLE 15. Summary of work at separate Clinics.

Institution.	Patient Days.	New Patients.				Attendances.				In-Patient Treatment.		Patients discharged including transfers.	Still under Treatment.	Salvarsan Substitutes.	
		Gonorrhœa.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Gonorrhœa.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Patients.	Days.			Patients.	Doses.
Ashford...	49	21	14	1	9	467	243	8	50	—	—	32	29	53	190
Canterbury	198	41	78	—	54	132	918	—	131	2	10	140	192	122	534
Dartford..	141	48	30	3	42	2220	558	28	38	—	—	124	213	30	234
Dover ...	306	41	53	4	24	659	770	28	44	9	179	112	65	168	309
Faversham	50	13	18	—	6	111	276	—	14	—	—	14	35	51	223
Folkestone	152	23	28	2	27	510	417	9	61	1	1	89	47	70	208
Gravesend	100	42	45	—	19	170	759	—	38	—	—	111	62	70	265
Margate	51	24	37	—	13	486	558	—	38	—	—	45	61	177	479
Rochester	199	182	120	2	16	3269	2748	38	48	—	—	119	502	310	1067
Sheerness	49	9	13	—	7	344	72	—	16	—	—	11	18	13	55
Tunbridge Wells	104	25	20	—	62	260	572	—	99	5	94	130	17	41	257
Totals...	1399	469	456	12	279	8628	7891	111	577	17	284	927	1241	1105	3821
London Hospitals }	—	177	162	6	97	7381				?	2311	?	?	?	1296



Ten Kent patients were admitted to London hostels during the year 1921, aggregating 1,112 days in residence.

Examinations of pathological specimens for the detection of spirochætes and gonococci, and tests for the Wassermann re-action, are undertaken at the bacteriological laboratory attached to the County Medical Officer's department. The numbers of examinations carried out during the year were as follows :—

For detection of spirochætes	...	{ For treatment centres	...	24
		{ For practitioners	...	10
For detection of gonococci ..	...	{ For treatment centres	...	411
		{ For practitioners	...	165
For Wassermann re-action ...	...	{ For treatment centres	...	1206
		{ For practitioners	..	617
Other examinations	... ..			66
Total	... ..			<u>2499</u>

The provision of approved "salvarsan" substitutes to medical practitioners producing satisfactory evidence of experience in the administration of these drugs, is undertaken direct from the County Health Department. My office index contains the names of seventy-three accredited practitioners, and during the year 4,749 doses were supplied, namely, 351 to private doctors and 4,398 to medical officers of treatment centres.

The number of patients under the care of private doctors for whom these substitutes were supplied during the year was fifty-eight.

In cases where a patient cannot receive the treatment required, unless travelling expenses are paid, the County Council defrays the cost. The fares of twenty-four patients were paid during 1921.

The educational and propaganda arrangements have been undertaken on the same lines as previously outlined.

The following observations are made by Dr. Cassells, the whole-time Venereal Diseases Medical Officer :—

During the year 1921 there has been a considerable decrease in the number of new cases presenting themselves at the clinics. This diminution in numbers of new patients is general over the whole country, and it is perhaps a sign that the numbers of fresh infections are decreasing. Another fact pointing in this direction is the type of case of syphilis attending for the first time. This has been more in the nature of a comparatively late manifesta-

tion of the disease, and not of a recently acquired infection. Whether this decrease in the numbers of fresh infections attending is due to the work of the clinics in rendering a large number of sufferers non-infective, or whether it is due to other causes, is not at present clear, but the decrease is considerable.

On the other hand, the total number of attendances of patients has increased from 16,430 in 1920, to 17,207 in 1921, and there were 1,241 patients under treatment or observation on January 1st, 1922, as against 952 twelve months previously. An increase in the number of patients who attended for the first time during the year and were found not to be suffering from venereal disease, would support the idea that the clinics are actually being made fuller use of, notwithstanding the fall in the numbers of new cases.

A considerable number of pregnant women suffering from syphilis have attended and been treated at the clinics with the result that the children have been born free from manifestations of that disease. These children have, as far as possible, been kept under observation, or have undergone a course of treatment with excellent results. Ante-natal treatment of the mother is of the highest importance in the interest of the child, and it is essential that every woman who has suffered from syphilis should be treated throughout the whole of every succeeding pregnancy to ensure the birth of a healthy child. This fact is sometimes forgotten, so that, when a healthy child is born, the disease is assumed to have been cured, treatment is not instituted during subsequent pregnancy, with the result that a diseased child may be born. A certain number of congenital cases of syphilis, occurring in children from five to twelve years of age, have attended clinics during the year. While treatment of these children modifies and arrests the disease, their outlook is not so hopeful as it is for babies. The longer the disease is allowed to progress untreated the more difficult it is to eradicate. The best chance for these unfortunate little sufferers is treatment immediately from birth.

The attendance of patients throughout the year has been good, but 18 % of the patients who attended the clinics in 1921 ceased to attend before completing a course of treatment and 6 % ceased to attend after completing a



course of treatment, but before satisfying tests of cure. Nearly one quarter, therefore, of the total patients attending our V.D. clinics ceased attending contrary to advice. A certain proportion of these cases have been rendered non-infective but the remainder are liable to spread infection and to bring into the world diseased and mentally deficient children whose treatment and upkeep has often to be undertaken by the State.

Whether a scheme of confidential notification and compulsory treatment would defeat its object or not, by preventing sufferers from seeking any treatment, is a debatable point, but the figures quoted shew that any means which would ensure these cases being rendered non-infective deserve thorough consideration.

#### BACTERIOLOGICAL LABORATORY.

The total of 26,910 examinations made in the laboratory during the past year exceeds greatly the number of examinations for any previous year. This large total is due in great part to the widespread epidemic of diphtheria, which necessitated an excessive number of examinations in connection with this disease. There is also, however, abundant evidence that the facilities offered in the laboratory are becoming more widely appreciated and utilised each year—for example, the number of diphtheria examinations made per case notified is higher this year than in any previous year, also the number of special examinations (663), many of which are long and elaborate processes, is higher than ever before.

The extent to which the laboratory is employed by the districts is markedly different. The number of specimens examined, per case notified of the disease, is some indication of the standard of keenness that exists amongst medical officers of health and the practitioners to combat the spread of the disease concerned.

Towards the end of the year new accommodation was found for the laboratory in the Sessions House. The work is now carried out in much larger rooms and this improvement gives opportunity for further developing the work and making the laboratory more useful in the diagnosis and prevention of disease in the county.

TABLE 16.—Analysis of Work carried out in the County Bacteriological Laboratory.

DISTRICT.	Number of Doctors sending in Specimens.	DIPHTHERIA.				TYPHOID FEVER.			PHTHISIS.			RINGWORM. Number of Examinations.	WATERS. Number of Examinations.	VARIOUS. Number of Examinations.	TOTAL Number of Examinations.	
		Number of examinations made.				Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.					
		Acute Stage.	Convalescent Stage.	Contacts.	Total.											
URBAN.																
Ashford ...	13	68	10	29	107	37	2.9	0	—	53	44	1.3	7	0	4	171
Beckenham ...	2	0	0	0	0	32	—	0	4	2	50	0.1	0	0	0	2
Bexley ...	14	69	13	6	88	47	1.9	1	1	23	25	1.0	38	0	2	152
Broadstairs ...	12	45	148	363	556	48	11.6	1	—	39	19	2.1	5	30	30	633
Bromley (Borough) ...	19	90	29	48	167	52	3.3	6	10	82	37	2.3	10	2	2	267
Chatham (Borough) ...	16	146	60	87	293	176	1.7	10	6	120	46	2.7	14	0	9	446
Cheriton ...	4	4	0	0	4	1	4.0	0	—	15	11	1.4	4	0	1	24
Chislehurst ...	8	27	19	41	87	15	5.8	3	10	9	3	3.0	1	1	3	104
Crayford ...	10	59	197	1210	1466	111	13.2	0	—	17	13	1.4	1	0	3	1487
Dartford ...	12	75	449	1494	2018	244	8.3	2	5	34	31	1.1	19	0	13	2086
Deal (Borough) .	6	1	0	0	1	1	1.0	2	1	36	26	1.4	9	0	5	53
Dover (Borough)	17	116	74	204	394	103	3.9	17	15	157	71	2.3	278	0	29	875
Erith ...	15	75	13	58	146	73	2.0	2	2	76	45	1.7	5	0	2	231
Faversham (Borough)	6	38	2	18	58	72	0.9	3	1	23	25	1.0	1	0	3	38
Folkestone (Borough)	21	100	6	33	139	29	4.8	4	1	159	66	2.5	23	0	21	346
Gillingham (Borough)	21	142	54	11	207	159	1.4	0	2	100	58	1.8	2	2	3	314
Gravesend (Borough)	18	133	14	59	206	48	4.3	7	7	81	38	2.2	12	0	4	310
Herne Bay ...	8	41	16	41	98	28	3.5	2	—	38	19	2.0	19	0	8	165
Hythe (Borough)	7	15	7	3	25	3	8.4	1	1	20	8	2.5	0	0	3	49
Lydd (Borough)	1	0	0	0	0	1	—	0	—	0	7	—	1	0	0	1
Maidstone (Borough)	17	160	25	1062	1247	67	18.7	10	4	94	74	1.3	85	0	158	1594
Margate (Borough)	17	81	14	28	123	63	2.0	2	2	39	59	0.7	15	0	2	181
Milton Regis ...	6	14	8	33	55	15	3.7	0	—	13	10	1.3	0	0	0	68



New Romney (Borough)	...	3	4	0	0	4	1	4.0	0	—	—	2	—	—	—	0	—	—	0	0	6
Northfleet ...	...	8	4	0	0	4	39	0.2	1	0.4	—	19	14	1.4	—	0	76	1.4	0	0	100
Penge ...	...	15	32	24	30	86	40	2.2	1	0.2	6	51	39	1.4	—	0	41	1.4	2	0	181
Queenborough (Borough)...	...	5	31	25	36	92	5	18.4	0	—	—	9	3	3.0	—	0	4	3.0	4	4	109
Ramsgate (Borough)	...	10	22	0	35	57	128	0.5	1	0.5	2	34	65	0.6	—	0	1	0.6	4	4	97
Rochester City ...	...	25	140	19	116	275	139	2.0	25	4.2	6	84	31	2.8	23	23	5	2.8	8	8	420
Sandgate ...	...	8	9	0	4	13	5	2.6	0	—	—	7	3	2.4	0	0	0	2.4	0	0	20
Sandwich (Borough)	...	6	6	0	0	6	—	—	1	1.0	1	6	2	3.0	0	0	0	3.0	1	1	14
Sevenoaks ...	...	8	10	0	0	10	—	—	1	—	—	22	6	3.7	23	0	0	3.7	13	69	
Sheerness ...	...	7	16	3	8	27	11	2.5	2	—	2	29	21	1.4	33	9	0	1.4	7	107	
Sidcup ...	...	9	81	8	28	117	25	4.7	1	—	—	19	7	2.7	1	0	0	2.7	5	143	
Sittingbourne ...	...	9	83	8	74	165	20	8.3	3	1.5	2	42	17	2.5	0	0	0	2.5	5	215	
Southborough ...	...	9	36	14	35	85	18	4.8	1	—	—	19	—	—	9	0	0	—	1	115	
Tenterden (Borough)	...	3	0	2	4	6	—	---	0	—	1	9	5	1.8	0	0	0	1.8	0	15	
Tonbridge ...	...	10	31	21	11	63	21	3.0	0	—	—	48	14	3.5	9	0	0	3.5	3	123	
Tunbridge Wells (Borough)	...	10	15	2	45	62	32	2.0	7	2.4	3	93	32	3.0	1	0	0	3.0	11	174	
Walmer ...	...	5	5	117	101	223	20	11.2	1	1.0	1	18	1	18.0	13	0	0	18.0	0	255	
Whitstable ...	...	6	10	0	1	11	2	5.5	0	—	—	39	—	—	7	1	1	—	0	58	
Wrotham ...	...	4	1	0	0	1	1	1.0	0	—	—	11	—	—	18	0	0	—	4	34	
Totals in Urban Districts...		—	2035	1401	5356	8792	1932	4.6	118	1.2	99	1791	1045	1.8	790	38	373	11902			
<b>RURAL.</b>																					
Ashford, East ...	...	17	16	9	32	57	21	2.8	1	—	—	37	35	1.1	9	37	35	1.1	5	109	
Ashford, West ...	...	9	26	28	75	129	12	10.8	2	1.0	2	20	15	1.4	2	20	15	1.4	4	157	
Blean ...	...	12	13	3	18	34	10	3.4	0	—	3	15	12	1.3	5	15	12	1.3	0	55	
Bridge ...	...	10	38	21	340	399	54	7.4	2	2.0	1	43	15	2.9	18	43	15	2.9	39	501	
Bromley ...	...	14	5	5	13	23	68	0.4	0	—	1	51	25	2.1	53	51	25	2.1	1	128	
Cranbrook ...	...	13	19	14	3	36	6	6.0	5	5.0	1	30	13	2.3	30	30	13	2.3	8	109	
Dartford ...	...	18	30	31	559	620	150	4.2	4	0.6	7	42	27	1.6	4	42	27	1.6	16	686	
Dover ...	...	9	7	1	47	55	21	2.7	0	—	—	14	9	1.6	11	14	9	1.6	1	81	
Eastry ...	...	10	13	1	0	14	2	7.0	3	3.0	1	31	17	1.9	31	31	17	1.9	1	81	
Elham ...	...	11	4	5	8	17	9	1.9	0	—	—	21	23	1.0	0	21	23	1.0	1	39	
Faversham ...	...	13	46	25	144	215	39	5.6	2	0.5	4	8	12	0.7	4	8	12	0.7	8	237	
Hollingbourn ...	...	15	31	21	99	151	32	4.8	7	3.5	2	15	—	—	8	15	—	—	10	191	
Hoo ...	...	6	10	0	2	12	27	0.5	0	—	2	2	2	1.0	3	2	—	—	0	17	
Maidstone ...	...	20	19	10	12	41	31	1.4	1	0.5	2	51	20	2.6	28	51	20	2.6	19	140	

(Continued.)

TABLE 16 (continued).—Analysis of Work carried out in the County Bacteriological Laboratory.

DISTRICT.	Number of Doctors sending in Specimens.	DIPHTHERIA.				TYPHOID FEVER.			PHTHISIS.			RINGWORM. Number of Examinations.	WATERS. Number of Examinations.	VARIOUS. Number of Examinations.	TOTAL Number of Examinations.	
		Number of examinations made.		Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.					
Acute Stage.	Convalescent Stage.	Contacts.	Total.													
<b>RURAL</b> (continued).																
Malling ...	14	54	7	34	95	25	3.8	2	2	1.0	58	48	1.3	35	220	
Milton ...	11	78	56	447	581	81	7.2	1	1	—	19	13	1.5	3	603	
Romney Marsh ...	2	3	1	0	4	—	—	1	—	—	3	3	1.0	1	9	
Sevenoaks ...	16	41	11	291	343	39	8.8	0	—	—	48	26	1.9	60	466	
Sheppey ...	4	7	0	2	9	2	4.5	0	—	—	7	5	1.4	103	119	
Strood ...	14	12	12	0	24	18	1.4	7	16	0.5	27	13	2.1	57	115	
Tenterden ...	6	2	0	1	3	—	—	0	—	—	31	7	4.5	1	35	
Thanet ...	16	39	81	566	686	68	10.1	1	—	—	16	24	0.7	13	719	
Tonbridge ...	16	28	0	3	31	12	2.6	2	1	2.0	55	29	1.9	7	98	
Total Rural Districts ...	—	541	342	2696	3579	727	5.0	40	46	0.9	644	393	1.7	486	4915	
Total Urban Districts ..	—	2035	1401	5356	8792	1932	4.6	118	99	1.2	1791	1045	1.8	790	11902	
Total Rural Districts ...	—	541	342	2696	3579	727	5.0	40	46	0.9	644	393	1.7	486	4915	
Total Urban District Hospitals	—	198	2461	23	2682	—	—	15	—	—	0	—	—	0	2731	
Total Rural District Hospitals	—	41	1425	9	1475	—	—	5	—	—	0	—	—	0	1491	
Total Combined Hospitals ...	—	40	2797	3	2840	—	—	2	—	—	56	—	—	0	2919	
Examinations for Canterbury ...	—	34	131	144	309	?	?	0	—	—	75	?	?	0	418	
Various County Specimens ...	—	2	0	0	2	—	—	0	—	—	4	—	—	1	35	
GRAND TOTAL ...	—	2891	8557	8231	19679	2659	*7.3	180	145	1.3	2570	1438	*1.8	1277	24411	

\*Excluding those examinations carried out for the City of Canterbury.



TABLE 17.—Details of various specimens examined at the County Laboratory during 1921 :—

SPECIAL EXAMINATIONS IN CONNECTION WITH INFECTIOUS DISEASES.	
Examinations of serum (?) <i>B. Para-typhosus</i> (agglutination test) .....	52
Examinations of faeces (?) <i>B. Typhosus</i> .....	40
Examinations of blood films (?) malaria .....	33
Examinations of urine (?) <i>B. Typhosus</i> .....	26
Examinations of urine (?) tubercle bacilli .....	22
Examinations of faeces (?) <i>B. Dysenteriae</i> .....	20
Examinations of milk (?) tubercle bacilli .....	18
Testing virulence of <i>B. Diphtheriae</i> .....	13
Examinations of serum (?) <i>B. Dysenteriae</i> (agglutination test) .....	13
Examinations of pus (?) tubercle bacilli and organisms .....	13
Examinations of cerebro-spinal fluid (?) <i>T.B. Meningitis, etc.</i> .....	10
Examinations of faeces (?) tubercle bacilli .....	7
Examinations of pleural effusion (?) tubercle bacilli .....	5
Examinations of sputum (?) tubercle bacilli and organisms .....	3
Examinations of shaving brushes (?) <i>B. Anthracis</i> .....	3
Examination of milk (?) <i>B. Typhosus</i> .....	1
Examination of swab (?) <i>B. Anthracis</i> .....	1
Examination of vomit (?) tubercle bacilli .....	1
Examination of urine (?) tubercle bacilli and <i>B. Coli</i> .....	1
Examination of pleuritic fluid (?) tubercle bacilli or carcinoma .....	1
Examination of faeces (?) <i>B. Para-typhosus</i> .....	1
Examination of faeces (?) <i>B. Typhosus</i> and <i>B. Dysenteriae</i> .....	1
Examination of faeces (?) tubercle bacilli and <i>B. Dysenteriae</i> .....	1
Examination of tonsils and adenoids (?) <i>B. Diphtheriae</i> .....	1
Examination of kidney (?) tubercle bacilli .....	1
Examination of pus (?) <i>B. Anthracis</i> .....	1
Examination of nasal discharge (?) <i>B. Diphtheriae</i> and organisms .....	1
Total .....	290

SPECIAL EXAMINATIONS IN CONNECTION WITH NON-INFECTIOUS DISEASES.	
Histological examinations of tissues .....	85
Preparation of autogenons vaccines .....	50
Bacteriological examinations of water .....	42
Examinations of blood films (?) differential count, &c. ....	41
Bacteriological examinations of urine .....	31
Chemical .....	11
Microscopical .....	18
General .....	1
Examination of pus (?) organisms .....	20
Government Examinations of Grade A (certified) milk .....	19
Examinations of faeces (?) organisms .....	13
Examinations of cerebro-spinal fluid (?) organisms .....	12
Examinations of swabs (?) organisms .....	6
Feeding experiments .....	6
Examinations of blood (?) organisms .....	4
Examinations of faeces (?) <i>Lambia intestinalis</i> .....	4
Examinations of sputum (?) organisms .....	4
Examinations of cultures (?) organisms .....	5
Examinations of swabs from gums (?) organisms .....	3
Examinations of faeces (?) streptococci .....	3
Examinations of nasal discharge (?) organisms .....	3
Examinations of urine (?) <i>B. Coli</i> .....	2
Examinations of ascitic fluid (?) organisms .....	2
Examinations of faeces (?) blood .....	2
Examinations of pleural effusion (?) organisms .....	2
Examinations of pus (?) actinomycosis .....	2
Examinations of fluid from knee joint (?) organisms .....	2
Examinations of uterine discharge (?) organisms .....	2
Examinations of swabs from ulcers in pigs (?) organisms .....	2
Examination of swab (?) Vincent's Angina .....	1
Examination of swab from sore (?) Leishmann Donovan bodies .....	1
Examination of pus (?) pneumococci .....	1
Examination of cerebro-spinal fluid (?) lymphocytosis .....	1
Examination of faeces (?) bile .....	1
Examination of sputum (?) bronchial spirochaetosis .....	1
Examination of faeces (?) ova .....	1
Examination of washing from colon (?) nature of solids .....	1
Examination of material from shoulder joint (?) organisms .....	1
Testing of steam disinfectant .....	1
Examination of blood film (?) parasites .....	1
Examination of tinned salmon (?) food poisoning organisms .....	1
Examination of peritoneal fluid (?) organisms .....	1
Examination of cast of bronchus (?) organisms and nature .....	1
Examination of discharge from ear (?) organisms .....	2
Examinations of throat swabs (?) organisms .....	1
Examination of blood film (?) abnormal cells .....	1
Total .....	415
Grand Total .....	705

The following specimens were examined for the County Borough of Canterbury :—

Swabs for diphtheria .....	309
Sputum for tubercle bacilli .....	75
Water .....	1
Various .....	33
Total .....	418





TABLE 18.—Showing the numbers of specimens of each kind sent to the Laboratory for examination from the **Urban** and **Rural Districts** during the years 1912, 1919, 1920 and 1921.

Districts.	Diphtheria.				Typhoid Fever.				Phthisis.			
	1912. (First Year.)	1919.	1920.	1921.	1912. (First Year.)	1919.	1920.	1921.	1912. (First Year.)	1919.	1920.	1921.
Urban .....	2656 (1·8)	4457 (4·0)	7804 (4·2)	11474 (6·0)	290 (1·1)	84 (1·4)	126 (1·4)	133 (1·4)	295 (0·2)	1485 (1·5)	1854 (1·7)	1791 (1·8)
Rural.....	785 (1·6)	2453 (5·5)	2522 (4·8)	5054 (7·0)	44 (0·6)	22 (1·6)	56 (1·8)	45 (1·0)	70 (0·1)	550 (1·4)	780 (2·1)	644 (1·7)
Total ... (including Combined Hospitals, etc.)	3487 (1·8)	8037 (5·1)	12381 (5·2)	19679 (7·5)	335 (1·0)	109 (1·5)	189 (1·5)	180 (1·3)	365 (0·2)	2035 (1·4)	2631 (1·8)	2570 (1·8)

Districts.	Ringworm.				Water.				Various.				Grand Total.				Milk.	
	1912. (First Year.)	1919.	1920.	1921.	1912. (First Year.)	1919.	1920.	1921.	1912. (First Year.)	1919.	1920.	1921.	1912. (First Year.)	1919.	1920.	1921.	1914	1915, 1916, 1917, 1918, 1919, 1920 & 1921.
Urban .....	517	556	706	790	41	56	44	38	59	281	457	407	3858	6919	10991	14633	44	Tuberculosis Order suspended.
Rural.....	168	362	302	486	13	2	5	3	7	73	184	174	1087	3462	3849	6406		
Total ... (including Combined Hospitals, etc.)	685	918	1008	1277	54	58	49	42	66	361	653	663	4992	11518	16914	24411		

NOTE.—The figures in brackets show the numbers of specimens examined per case notified.

## ADMINISTRATION OF THE MIDWIVES ACTS, 1902-1918.

The two whole-time inspectors of midwives, Miss Harrison and Miss Berry, have continued to carry out their duties in a praiseworthy manner, and visits are paid as previously described.

TABLE 19.—SHEWING THE NUMBER OF MIDWIVES PRACTISING IN THE COUNTY OF KENT IN EACH SANITARY AREA AT THE END OF 1921.

District.	Trained.	Bonâ-fide.	District.	Trained.	Bonâ-fide.
<b>Urban.</b>					
Ashford ... ..	2	—	Margate ... ..	4	—
Beckenham ... ..	2	—	Milton Regis ... ..	—	1
Bexley ... ..	8	1	New Romney ... ..	—	—
Broadstairs and St. Peter's ... ..	2	—	Northfleet ... ..	1	3
Bromley ... ..	7	—	Penge ... ..	3	1
Chatham ... ..	5	4	Queenborough ... ..	—	1
Cheriton ... ..	3	—	Ramsgate ... ..	8	—
Chislehurst ... ..	1	1	Rochester ... ..	9	2
Crayford ... ..	1	1	Sandgate ... ..	1	—
Dartford ... ..	6	—	Sandwich ... ..	2	—
Deal ... ..	3	—	Sevenoaks ... ..	5	2
Dover ... ..	6	—	Sheerness ... ..	2	1
Erith ... ..	7	—	Sidcup ... ..	1	—
Faversham ... ..	3	1	Sittingbourne ... ..	2	—
Folkestone ... ..	4	1	Southborough ... ..	3	—
Gillingham ... ..	13	—	Tenterden ... ..	2	—
Gravesend ... ..	1	1	Tonbridge ... ..	3	3
Herne Bay ... ..	1	—	Tunbridge Wells ... ..	10	3
Hythe ... ..	1	—	Walmer ... ..	1	1
Lydd ... ..	1	—	Whitstable ... ..	4	—
Maidstone ... ..	6	2	Wrotham ... ..	2	1
				146	31
<b>Rural.</b>					
Ashford, East ... ..	3	2	Milton ... ..	3	—
Ashford, West ... ..	3	—	Romney Marsh ... ..	—	—
Blean ... ..	3	2	Sevenoaks ... ..	14	2
Bridge ... ..	5	3	Sheppey ... ..	1	—
Bromley ... ..	9	2	Strood ... ..	6	1
Cranbrook ... ..	2	—	Tenterden ... ..	1	1
Dartford ... ..	9	2	Thanet ... ..	3	—
Dover ... ..	3	2	Tonbridge ... ..	14	1
Eastry ... ..	3	—			
Elham ... ..	1	—	Rural ... ..	105	30
Faversham ... ..	8	—	Urban ... ..	146	31
Hollingbourn ... ..	2	—			
Hoo ... ..	1	—	Total ... ..	251	61
Maidstone ... ..	6	2			
Malling ... ..	5	10			312



Table showing various details respecting the number of midwives, notifications received, &c., during the ten years 1912-1921 :—

Number of Midwives, &c :—

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921. North and West. Miss Harrison.	South and East. Miss Berry.	Total.
Number of Midwives practising in the County on January 1st .. ..	332	340	334	386	347	290	263	286	294	189	113	302
Removed during year ..	38	33	27	40	45	43	23	32	62	25	18	43
Died .. ..	4	4	4	4	7	4	2	3	6	2	4	6
Resigned .. ..	0	3	6	5	13	17	9	7	5	2	—	2
Certificates cancelled by Central Midwives Board during the year	5	5	8	4	4	1	—	1	—	—	—	—
Number of additional Midwives who notified their intention to practise in the County during the year	55	39	97	14	12	38	57	51	81	22	39	61
Number of Midwives Practising on December 31st	340	334	386	347	290	263	286	294	302	182	130	312*
Number of letters forwarded by County Medical Officer to Midwives drawing attention to breaches of the Rules	19	27	25	15	12	11	4	8	10	2	1	3
Number of cases censured and cautioned by the Central Midwives Board to strictly observe the Rules	—	—	—	2	—	—	—	—	—	—	—	—
Number of midwives prosecuted for not notifying their intention to practise	1	—	1	—	—	—	—	—	—	—	—	—
Uncertified women prosecuted for practising as midwives, etc.	7	3	8	1	—	—	—	—	—	2	—	2

Numbers of Notifications, Inspections, &c. :—

Stillbirths .. ..	249	224	251	206	221	180	196	210	262	117	71	188
Deaths { Mother .. ..	2	5	—	2	1	3	7	3	1	2	—	2
{ Child .. ..	37	31	24	27	22	15	18	24	26	18	14	32
Medical { Mother .. ..	659	679	715	642	672	696	610	882	1116	519	496	1015
{ Child ... ..	304	351	439	279	389	400	351	451	519	253	217	470
Notifications of having laid out a dead body	77	83	86	68	66	45	31	53	39	38	14	52
Notifications of liability to be a source of infection	—	—	—	—	8	14	25	20	29	10	13	23
Notifications of having advised artificial feeding	—	—	—	—	—	—	—	41	110	46	22	68
Total Visits paid by Inspectors	1947	1747	1745	1568	1464	1461	1450	1390	1499	766	668	1434
Inspections of Bonâ Fide Midwives	606	507	433	322	331	217	238	221	213	92	59	151
Inspections of Trained Midwives	487	429	503	492	443	426	579	597	585	295	286	581
Inspections of Uncertified Women	37	10	11	6	8	18	13	10	7	—	5	5

\*Of these midwives 251 were trained and 61 were *bonâ fide* as compared with 115 trained and 225 *bonâ fide* in 1909.

The two resignations during the year have been due to old age and inability to comply with the rules of the Central Midwives Board.

It will be observed that there was a total increase of ten practising midwives at the end of the year, but it is still difficult to obtain the services of midwives.

In very few of the rural areas are there sufficient cases to enable a midwife to earn a livelihood without assistance, and the majority of rural midwives are either married women or they also act as local district nurses under a nursing association, or come under the scheme shewn on the next page.

From enquiries made from each midwife, it has been ascertained that 10,319 births were attended by midwives alone out of a total number of 21,518 births registered in the administrative County of Kent during the year 1921.

*211 midwives attended 25 cases or less.			
55	„	„	26 to 50 cases.
22	„	„	51 to 75 „
21	„	„	76 to 100 „
11	„	„	101 to 125 „
4	„	„	126 to 150 „
1	„	„	151 to 175 „
6	„	„	176 cases upwards.

\* Of this number one hundred were either district nurses or midwives who had commenced practising during the year.

#### SUMMARY OF REASONS OF SENDING FOR MEDICAL HELP (1921):—

For the mother :—

	North and West Kent.	South and East Kent.	Whole County.
Abnormal Presentation .....	47	32	79
Abnormal labour (? obstructed)...	35	149	184
Abortion .....	22	17	39
Ante-partum hæmorrhage .....	20	26	46
Delayed labour .....	115	15	130
Post-partum hæmorrhage .....	15	10	25
Rise of temperature.....	24	19	43
Retained placenta .....	29	28	57
Torn perineum.....	135	113	248
Miscellaneous .....	43	77	120
Ante-natal .....	34	10	44
Total .....	519	496	1015

For the child :—

Prematurity and feebleness .....	87	78	165
Deformities.....	16	17	33
Inflammation of the eyes .....	116	62	178
Skin eruptions .....	4	14	18
Miscellaneous .....	30	46	76
Total .....	253	217	470



PUERPERAL FEVER.—During the year under review forty cases of puerperal fever were notified ; of this number seventeen were attended, in the first place, by midwives alone, and twenty-three by doctors. In seven of these latter a midwife acted in the capacity of maternity nurse.

OPHTHALMIA NEONATORUM.—It will be seen from tables 3 and 4, that 118 cases of ophthalmia neonatorum occurred during 1921. Those cases occurring in the practice of midwives are investigated in the ordinary course by the inspectors, and information relating to the cases which occurred in the county child welfare area is shown on p. 72.

MIDWIFERY SERVICE.—The Kent Education Committee set aside each year from six to ten scholarships for midwifery candidates nominated by the County Medical Officer. The candidate has to enter into an agreement to serve as a midwife in Kent for three years in a district where there is a need of a midwife. Four candidates were so trained in 1921.

The Kent County Council have subsidised a number of midwives in areas where the service is inadequate and where it is not possible for one to earn a livelihood without assistance.

The minimum guaranteed income is £100 per annum, and the annual subsidies payable by the County Council vary from £40 to £70, according to the number of confinements which it is expected that the midwife will be able to undertake. At the time of writing the following districts have been provided for in this manner:—Aylesford, Tenterden and neighbourhood, Yalding and Hunton, Hoo and High Halstow, Footscray, Hadlow and district, and Halling and district. Brasted and Loose (with Linton and part of Farleigh) have been provided for by making the midwives a small annual grant.

Difficulty is still experienced in obtaining either a house or unfurnished rooms for subsidised midwives, and a number of appointments have again fallen through owing to this reason.

The Kent County Nursing Association have also displayed great activity in the establishment of midwives for areas where there is a shortage, and the County Council have assisted that association in the

formation of new local nursing associations for this purpose, by means of grants varying from £20 to £50 per annum to meet the estimated deficit for the year, with a promise of future grants based on the annual balance sheet if such grants should be needed. These associations also undertake general district nursing, but it is understood that the midwifery work shall receive primary consideration. Altogether twenty-three associations have commenced on this basis. Five grants were made during 1921.

#### MATERNITY AND CHILD WELFARE.

HEALTH VISITING.—The population of the area covered by the county maternity and child welfare scheme during 1921 was 377,076. The duties of all the whole-time nurses on the County Medical Officer's staff include health visiting (where undertaken by the County Council), school nursing and tuberculosis visiting. The aggregate number of days per week devoted to child welfare work under this arrangement is equivalent to the time of 12·22 whole-time nurses. Table 20 shows the work of the health visitors in home visiting during the year under review.

MATERNITY AND CHILD WELFARE CENTRES.—Table 21 shows the maternity and child welfare centres coming within the administration of the Kent County Council, with information as to the attendances, etc. New county centres were established at Tenterden, Hollingbourn and Farnborough in 1921, and voluntary centres have been started at West Malling and Walmer since the end of the year.

The reports of medical officers on the work of the centres during the year are most encouraging, and prove beneficial results. The mothers appear to be taking a keener interest than formerly, and a spirit of emulation is set up between mothers, which re-acts to the benefit of the infants. Babies are generally brought to the centres at an earlier age, and advice is more frequently sought on digestive troubles, etc. Attendances have increased considerably, and more mothers attend before parturition, for advice in pregnancy. The percentage of children entirely breast-fed has increased from that of the previous year. Various reasons for failure in breast-feeding are suggested, including too rapid child bearing, unemployment of wage earners, and laziness and ignorance of mothers. Grants of milk assist as regards the second cause, and ignorance is gradually disappearing.



## HEALTH VISITING IN COUNTY AREA DURING 1921.

District.	Present Health Visitor.	Acreage.	Total Population, 1921.	No. of Births, 1921.	No. of Visits paid.			Births attended by				Feeding Methods.				Complaints dealt with.	
					First.	Subsequent and Special.	Fruitless.	Doctor.	Midwife.	Doctor and Midwife.	Uncertified Women in emergency.	Breast.	Breast and Hand.	Hand.	Percentage entirely Breast Fed.	Housing.	Other.
Sheppey R. ....	Miss Dockrill ....	21,197	4,463	90	68	463	13	11	47	10	—	49	6	13	72	—	—
Faversham R. ....	Miss Turnell ....	29,005	10,139	†222	163	571	94	48	108	7	—	142	11	10	87	1	—
(21 parishes)																	
Faversham B. ....	Miss Taylor ....	22,366	16,326	†339	321	2,195	96	154	154	13	—	201	77	43	63	11	—
(5 parishes)																	
Blean R. ....																	
(2 parishes)																	
Bridge R. ....	Miss Worthington	55,834	15,397	†288	244	1,119	71	44	157	42	1	185	35	24	76	—	2
Blean R. ....																	
(6 parishes)																	
Herne Bay U. ....	Mrs. Stokes .....	7,843	22,065	†327	282	3,190	216	218	46	18	—	124	52	106	44	10	5
Whitstable U. ....																	
Blean R. ....																	
(3 parishes)																	
Broadstairs U. ....	Mrs. Morris .....	22,383	23,150	328	275	1,646	25	167	86	22	—	207	36	32	75	1	1
Thanet R. ....																	
Eastry R. ....	Miss Bailey .....	43,682	13,340	243	192	1,615	105	100	61	26	5	148	7	37	77	21	3
Deal B. ....	Mrs. Smithson ....	2,102	17,450	340	292	1,152	119	95	149	47	1	240	12	40	82	31	10
Walmer U. ....																	
Dover R. ....	Miss Harvey .....	27,121	8,549	135	123	641	14	59	56	3	5	64	25	34	52	13	24
Cheriton U. ....	Miss Orpin .....	38,313	14,820	290	221	1,128	86	71	140	10	—	193	10	18	87	8	—
Elham R. ....																	
Hythe B. ....	Miss Hastings ....	46,860	16,759	288	109	378	21	91	16	1	1	79	9	21	72	—	—
New Romney B. ....																	
Lydd B. ....																	
Sandgate U. ....																	
Romney Marsh R. ....																	
Hollingbourn R. ..	Miss Hennis .....	57,670	13,050	233	197	922	63	145	37	14	1	169	9	19	86	25	—
Tenterden B. ....	Miss Blackmore ..	72,319	15,917	†302	298	718	15	211	76	10	1	258	31	9	87	9	1
Tenterden R. ....																	
Cranbrook R. ....																	
(4 parishes)																	
Cranbrook R. ....	Miss Asbery .....	12,416	17,364	†352	121	322	24	77	32	12	—	101	3	17	83	2	—
(2 parishes)																	
Maidstone R. ....																	
(4 parishes)																	
Malling R. ....																	
(2 parishes)																	
Maidstone R. ....	Miss Johnson .....	17,540	12,345	†256	262	926	101	92	161	9	—	174	60	28	66	12	—
(11 parishes)																	
Malling R. ....																	
(2 parishes)																	
Malling R. ....	—	7,544	5,211	†124	—	—	—	—	—	—	—	—	—	—	—	—	—
(3 parishes)																	
Malling R. ....	Miss Miles .....	21,514	14,283	†335	346	799	81	7	191	140	8	226	85	35	65	28	3
(13 parishes)																	
Strood R. ....																	
(1 parish)																	
Tonbridge U. ....	Miss Wheeler ....	1,356	15,898	311	322	1,590	131	56	160	106	—	274	17	31	85	—	—
Southborough U. ...	Miss Workman ....	1,702	6,960	161	132	588	14	6	70	56	—	110	4	18	83	1	—
Wrotham U. ....	Miss Watt .....	35,089	17,291	†341	270	1,038	87	66	176	28	—	200	42	28	74	3	—
Bromley R. (1 parish)																	
Malling R. (1 parish)																	
Sevenoaks R. ....																	
(7 parishes)																	
Strood R. (except 2 parishes)	Miss Barnes .....	27,687	10,717	†236	187	1,403	204	93	65	29	—	151	27	9	81	—	5
Hoo R. ....	Miss Main .....	22,687	7,999	†177	180	1,225	17	27	116	37	—	132	31	17	73	6	—
Strood R. ....																	
(1 parish)																	
W. Ashford R. ....	Miss Young .....	39,490	7,650	139	117	516	—	70	47	—	—	102	12	3	87	—	—
Chislehurst U. ....	Nurses Howard	4,834	17,830	284	232	943	58	100	118	14	—	203	9	20	88	—	—
Sidecup U. ....	[and Eke																
Bromley R. (except 1 parish)	Local Nurses ....	68,580	37,255	†674	449	3,772	73	143	258	48	—	388	27	34	86	—	—
Sevenoaks R. ....																	
(11 parishes)																	
E. Ashford R. ....	6 Local Nurses ....	54,800	14,840	286	251	674	44	128	113	10	—	228	19	4	91	—	—
Totals .....		791,934	377,076	7,101	5,654	29,534	1,772	2,279	2,640	712	23	4,348	656	650	77	182	54

† Estimated.





TABLE 23.—Showing housing inspections and remedy of defects; also building activities and housing shortage in the Urban Districts of Kent.

DISTRICT.	Number of dwelling-houses inspected during the year.		Number of dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	Number of representations made to the local authority with a view to the making of closing orders.	Number of closing orders made.	Number of houses made habitable after closing orders.	Number of demolition orders made.	Number of houses demolished.	Number of houses in respect of which notice was issued for remedy of conditions.		Number of houses where remedy was effected.			No. of houses included in Council's Scheme for provision of New Dwellings	Housing Schemes.		Approximate shortage March, 1922.	Should shortage be met by private enterprise within reasonable period?
	Under H.T.P. Act (Housing Regulations).	Under P.H. or Housing Acts.							Under Sec. 28 H.T.P. Act.	Under P.H. Acts.	Under Sec. 28 H.T.P. Act.	Under P.H. Acts.	By an informal notice.		No. erected to date.			
															Under Scheme.	By Private enterprise		
Ashford ... ..	63	63	—	—	—	—	—	—	9	—	9	—	90	84	69	4	14	Yes
Beckenham ... ..	178	652	—	—	—	—	—	—	—	—	—	—	—	404	174	19	200	Yes
Bexley ... ..	72	640	—	—	—	—	6	6	9	45	10	52	264	426	252	16	?	No
Broadstairs ... ..	—	365	1	—	1	—	—	—	1	—	—	—	43	50*	—	52	50	No
Bromley (Borough)...	391	539	5	8	—	—	—	—	—	381	—	381	265	300(1186)	68	43	?	No
Chatham (Borough)	60	474	1	1	1	—	1	1	60	414	30	119	414	300	52	44	150	?
Cheriton ... ..	33	33	—	—	—	—	—	—	—	—	—	—	33	—	—	12	—	—
Chislehurst ... ..	—	188	—	—	—	—	—	—	—	—	—	—	—	50	30	3	60	No
Crayford ... ..	350	—	—	—	—	—	—	—	—	—	—	—	100	50	—	—	150	No
Dartford ... ..	123	568	5	4	4	—	—	—	—	284	—	15	202	600	43	73	165	No
Deal (Borough) ... ..	185	—	3	1	1	1	—	—	5	37	5	37	55	36*	—	—	Small	—
Dover (Borough) ... ..	152	5735	7	7	7	1	—	12	19	16	81	17	524	1002	86	9	(a)	?
Erith... ..	898	—	4	4	4	—	—	—	47	481	13	331	213	1000	50	17	700	?
Faversham (Borough)	366	769	3	3	3	2	8	1	—	21	—	21	351	62*	—	1	Small	Doubtful
Folkestone (Borough)	631	816	23	—	—	1	—	3	3	590	2	387	396	200	174	35	Small	No
Gillingham (Borough)	27	377	5	5	5	—	—	—	6	22	6	22	—	172	136	29	404 ?	Doubtful
Gravesend (Borough)	—	2517	—	—	—	—	—	—	—	527	—	392	—	530	96	12	200	Doubtful
Harve Bay ... ..	45	175	1	1	1	—	—	—	—	93	—	9	84	30	—	45 (b)	30-40	No
Hythe (Borough) ... ..	54	138	—	—	—	—	—	—	52	—	52	—	—	42	23	5	16	Yes
Lydd (Borough) ... ..	—	—	1	1	1	—	—	—	—	—	—	—	30	(26 being erected) 6*	—	—	—	—
Maidstone (Borough)	58	—	—	—	—	—	—	—	—	—	—	—	—	188	132	19	300	No
Margate (Borough)...	149	1724	9	2	9	—	—	—	10	85	10	—	85	136	136	103 (b)	495	No
Milton Regis ... ..	243	—	—	—	—	—	—	3	91	18	84	18	12	48	8	2	40	No
New Romney (Borough)	—	160	—	—	—	—	—	—	—	—	—	—	—	—	—	7	6	Yes
Northfleet ... ..	201	—	—	—	—	—	—	—	—	—	—	112	354	142*	2	18	300	Doubtful
Penge ... ..	160	743	—	—	—	—	—	—	4	76	5	76	530	218	—	—	200	No
Queenborough (Borough)	40	—	—	—	—	—	—	—	19	43	19	—	43	132*	—	2	—	—
Ramsgate (Borough)	159	203	9	2	2	1	—	15	—	26	—	24	104	—	—	21	387 (c)	No
Rochester (City) ... ..	108	494	4	4	4	—	8	3	58	25	58	37	390	194	94	11	100 at least	No
Sandgate ... ..	133	—	2	2	2	—	—	—	64	—	62	—	—	24	—	8	—	—
Sandwich (Borough)	20	55	—	—	—	—	—	—	10	21	10	21	—	100	—	4	20-50	Yes
Sevenoaks ... ..	—	493	—	—	—	—	—	—	—	234	—	234	—	140	20	3	30	Yes
Sheerness ... ..	196	153	—	—	—	—	—	1	196	153	196	153	345	156	35	21	121	(d)
Sidecup ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—
Sittingbourne ... ..	650	121	—	—	—	—	—	13	244	203	—	—	—	50	28	2	100	No
Southborough ... ..	63	—	—	—	—	1	—	—	14	8	14	8	19	10	—	—	—	Yes
Tenterden (Borough)	—	66	10	—	—	—	—	—	—	—	—	—	10	24	12	4	28	Doubtful
Tonbridge ... ..	151	439	—	—	—	—	—	—	1	24	1	24	68	136	84	3	100	No
Tunbridge Wells (Borough)	32	204	—	—	—	—	—	—	7	10	7	10	52	30	30	9	20	Probably
Walmer ... ..	124	—	—	—	—	—	—	—	7	14	7	13	115	51	51	94	?	?
Whitstable ... ..	188	26	—	—	—	—	—	—	+	+	+	+	+	66	33	5	—	—
Wrotham ... ..	+	+	+	+	+	+	+	+	+	+	+	+	+	—	—	—	—	—
Total ... ..	6303	18969	96	45	45	10	23	58	936	3881	681	2517	5262	7059 +	1918	767	4386 +	—

+ Owing to the illness and death of the Inspector of Nuisances, no information is available.

\* Scheme abandoned.

(a) Only to replace insanitary dwellings = 505

(b) Few suitable for working classes.

(c) Includes necessary replacements.

(d) Should be met by Council's Scheme.



One medical officer of a centre, who is also a local medical officer of health, attributes the lowest infantile mortality rate on record in his district, in great part to the work of the centre.

The educational and social side of the work are developed mainly by voluntary committees with the help of the health visitor, and the majority of the medical officers give frequent health talks.

At the Snodland Centre the girls from the local council school attend the fortnightly talks by the health visitor. At the end of the year the girls wrote papers on the subject "how to feed baby." The papers were good and distinctly showed that the given instruction had been well remembered. The attendances of the girls at the centre must assuredly prove an asset for the better health of the future generation. Baby garments, cut from model patterns for the working woman, are made at the school by the girls, under the supervision of their mistress. The patterns are supplied from the centre, and the garments, when finished, are sold to the attending mothers for the price of the material used in the making.

The only centre at which dental work is carried out is Westerham, where the services of a local dentist are available as required.

VARIOUS.—The services of a nurse from the Kent County Nursing Association are available for home nursing, where necessary, in cases of measles, whooping cough, diarrhoea and poliomyelitis. The services of the health visitors are also available for the home visiting of measles, &c.

Provisional arrangements were entered into with four maternity homes, eight hospitals and six midwives, for the reception (on the recommendation of the County Medical Officer) of complicated confinement cases or cases where the home conditions are unsuitable for confinement.

Eleven cases were sent to one maternity home in 1921, but apart from this, the Ministry of Health have withheld approval of these important arrangements, on grounds of economy.

Two places are reserved by the County Council in the Ramsgate Hostel for unmarried mothers and children. These places have been kept filled constantly.



Recommendations for a free supply of milk are made by the health visitors to the County Medical Officer in accordance with the conditions laid down by the Ministry of Health. Orders for 3,578 gallons of milk and 307 lbs. of Glaxo were issued in 1921, and the actual expenditure during that year was £960.

Thirty-three cases of ophthalmia neonatorum were reported as occurring in the county child welfare area. Seven of these were treated in hospital, and in only two cases was the vision impaired, one of these resulting in total blindness.

Stillbirths are investigated and reported upon by the health visitors. In eighty-two instances in 1921 the following causes were definitely given:— Injury 22, abnormality 22, shock 7, venereal disease 3, various illnesses 28. In sixty-four instances the cause was stated to be unknown, and a proportion of these would undoubtedly be due to venereal disease

The following figures show certain infantile mortality rates during 1921:—

Kent urban districts .....	67	per 1,000 births.
„ rural districts .....	60	„
Whole county .....	65	„
Area of county scheme ... ..	57	„
Rest of Kent .....	67	„
England and Wales .....	83	„

It must be remembered that, included in the “rest of Kent” are the larger towns in the county, with congested areas, where the infantile mortality rate is naturally higher than in other parts. It is, however, satisfactory again to note that the rate for the “area of county scheme” is below that for the combined rural districts. All the county rates quoted can be regarded as very satisfactory, having regard to the hot dry summer. It is generally recognised that the saving of child life in recent years, has been due in great part to the activities of public child welfare schemes, but the efforts now being made in all directions will not show their full results till later years.

I have again to speak in high terms of the work of the health visitors and members of voluntary child welfare committees.

DISTRICT ADMINISTRATION:—The following particulars relate to the sanitary areas in which the Notification of Births Acts are administered by the local district councils:—

TABLE 22.

	Number of Health Visitors.		Births in 1921.	Visits of Health Visitors, 1921.	Maternity and Child Welfare Centres—Average Attendance of		Total amount of milk granted during year (free or at reduced price).
	Whole-time.	Part-time.			Mothers,	Children	
Ashford.....		1	286	2070	4	19	205 pints
Beckenham .....	1	†1	539	3838	4·5	60	£100
Bexley .....	2		509	7627	No	centre	Approximately £604
Bromley .....	2		624	4362	119	131	28866 pints
Chatham .....	2	†1	1011	7289	few	50	About 2200 packets of dried milk
Crayford .....	1		315	3629	—	100 (three centres)	12020 pints and 2817 lbs. dried milk
Dartford .....	2		482	5559	124	126	37190 pints and 533 lbs. dried foods.
Dover .....		†5	978	8596	2·7	40	27696 pints and 680 packets of dried milk
Erith.....	2		735	5332	8	93	62408 pints and 3414 packets of dried milk
Folkestone .....	2		641	2222	0·5	69	3317 pints
Gillingham .....	1	1	1123	4731	68	80·3	About 15 packets free, fairly large quantity at cost price
Gravesend.....	1		701	7252	85	112	15015 pints
Maidstone.....	2		719	6313	81	97	2968 pints
Margate .....	1		459	3674	79	86	728 pints
Milton Regis ...		1a	175	548	34	44	2715 pints and 239 lbs. dried milk
Northfleet.....	1		403	2532	—	37	2320 pints and 611 lbs. dried milk
Penge .....	1	1	564	1842	22·5	56·9	£199
Queenborough ...		1b	79	2146	30	35	None
Ramsgate .....	1	1	641	5731	30	32·5	£64 8s. 2d.
Rochester .....	2		698	8320	No	centre	5024 lbs. dried milk
Sandwich .....		1	64	742	15	11	None
Sevenoaks.....		2	162	311	3	42	None
Sheerness .....		1b	384	1548	136	153	40 lbs. dried milk
Sittingbourne ...		1a	244	680	30	36	2485 pints and 405 lbs. dried milk
Tunbridge Wells	1	†2	513	4066	37	39	3403 pints
Dartford Rural	3	2	731	3570	2	23	In 433 cases also dried milk in many cases
Milton Rural ...		1a	291	660	17	19	367½ pints and 75 lbs. dried milk
Tonbridge Rural		11	346	2396	Discontinued, March, 1921		238 pints

† Whole-time officials, but dividing their time between health-visiting and school-nursing.  
a and b. Whole-time health visitors for combined districts, as shown.



Maternity Homes have been established at Beckenham, with ten beds (for *Beckenham* and *Penge*), at *Bexley* with six beds, at *Erith* with five beds, and in *Dartford Rural* with four beds. *Bromley* and *Folkestone* also have the use of maternity beds in institutions. In *Chatham* and *Gillingham* the use of beds in the Naval Maternity Home, at present in course of erection, is under consideration. In *Crayford* and *Dartford* the question of securing accommodation in maternity homes is also under consideration.

Arrangements for the provision of home nursing by the district council (measles, etc.) are in existence in *Chatham*, *Herne Bay*, *Maidstone*, *Northfleet*, *Penge*, *Queenborough*, *Ramsgate*, *Tonbridge*, *Tunbridge Wells*, *East Ashford Rural* and *Faversham Rural*.

#### ADULT DENTAL CLINIC.

The existence of an "Adult Dental Clinic" at Folkestone is a matter worthy of note. This clinic, inaugurated by Sir Philip Sassoon, was established in October, 1920, and is an important adjunct to the activities of the Health Department. It is held at the Dental Clinic of the Folkestone School Medical Department, with the consent of the Education Committee, and the school dentist is in sole charge. Sessions are held on five days in each week, from 4 p.m. till 7 p.m., and treatment and advice are restricted to persons who are unable to afford the fees of private dentists. The fees are as follows:—Extractions, 1s.; extractions with gas, 5s.; stopping, 2s. 6d.; scaling, 1s.; and artificial denture, £2. No charge is made for inspection and advice, and no person is refused treatment who is unable to pay the fees.

The main idea of the clinic is to co-ordinate with the school clinic. The School Medical Department ensures, so far as is possible, that a child leaves school "dentally efficient"; but a year or two later, when dental treatment may be, and probably is, necessary, the child cannot afford the services of a private dentist. In such cases the Sassoon clinic continues the good work of the school dental clinic. Moreover, the attendance of the child at the school clinic undoubtedly influences the parents, in the opinion of the Medical Officer of Health of Folkestone, who writes:—"They, seeing the good effects following on dental treatment of their child, are naturally induced to attend the adult clinic. Thus the health of the population is improved."

Since the establishment of this clinic no less than 1,100 adults have been treated, very few of whom could have afforded to visit a private dentist.

#### MILK SUPPLY.

I am indebted to the County Analyst for the following information respecting his examinations during 1921, for the presence of preservatives in milk, skimmed milk and cream.



1,145 samples of milk and twelve of cream were examined. One sample of new milk was found to contain 0·041 % of boric acid, and four samples of cream contained 0·26 %, 0·14 %, 0·15 % and 0·23 % respectively.

Nine samples of preserved cream were analysed to confirm the accuracy of the statement on the label as to preservatives. In eight of these cases the percentage of preservative was stated on the label to be 0·4, and the respective percentages present were 0·25, 0·24, 0·38, 0·27, 0·33, 0·30, 0·27, and 0·28.

In one instance, the labelling was not in accordance with provisions—the percentage was stated to be 0·5 and the percentage found was 0·31. The amount of milk fat found in each of these nine samples was above 35 %.

No evidence of the addition of thickening substances to either cream or preserved cream was found.

In no case was any action considered necessary beyond warning the vendors.

The arrangements for temporary storage of milk on railway station platforms in the *Bromley Rural District*, are referred to in the district report, in one instance full churns being placed in an unsatisfactory position and liable to contamination. The medical officer of health of *Folkestone* refers to the dirty condition of milk churns from outside districts. In *Lydd* the milk supply is stated to be short, and a great deal of condensed milk is used in consequence.

A case of interest arose in the King's Bench Division, in connection with butter fat in milk. In *Few and another v. Robinson*, it was held that, to create an offence under Sec. 6 of the 1875 Act, it must be shown that milk had been adulterated either by the addition of some foreign substance contrary to the section or by the abstraction of one of its constituent elements. The sale of genuine milk cannot give rise to an offence under Sec. 6 of the Act.

#### FOOD SUPPLY.

The amount of food condemned during the year in the various districts, and also the activities of the local sanitary inspectors in connection with inspection of bakehouses and slaughter-houses, are shown in tables 25 and 26

Several medical officers of health again advocate the establishment of public abattoirs.

The practice among bakers of smoking and expectorating during the process of making bread and confectionery, is referred to by the inspector for *Bromley Rural*, who strictly cautions offenders.

In *Faversham Rural* the butchers have an insurance scheme, and bad meat is generally reported at once to the inspector.

## SANITATION OF HOPPER ENCAMPMENTS.

There appear to be very few grounds for complaint in connection with hopper encampments in the county. Improvements were noted in several districts, and in the East Ashford area better scavenging is advocated.

## HOUSING.

Tables 23 and 24 show the action taken in the different districts in respect of housing inspections and the remedy of defects, and also the position with regard to building activities and the housing shortage. It will be noted that in many districts it is not anticipated that private enterprise will meet the shortage. In some instances the point is doubtful and is contingent on reduction in the cost of materials and labour. The numbers of houses erected by private enterprise include all classes of property.

In the mining districts the shortage appears to be less acute owing to numbers of miners having left the district on account of shortage of work. In some of the industrial areas the same remarks apply owing to closing down of industries.

The medical officer of health for *Wrotham* observes that "under the municipal scheme half the houses decided to be necessary for the district were finished at Crowhill. About these, I think it is my duty to say a word. The roofs and outside appearances look satisfactory. The cost of building the houses was such that they had, in my opinion, no business to have been built, as their rents are far in advance of what working men in the district can afford to pay, and they are largely occupied by persons from outside the district for whom they were not meant. Their floors are of concrete and are most unsatisfactory and several are very damp."

The following observations by the medical officer of health of *Hoo Rural* may be taken as applying also to a number of other districts:—

"Proceedings under the Housing Acts are very difficult to institute by reason of the general housing conditions prevailing in the district. The houses in the worst condition cannot be touched because the only remedy is closure and demolition. The patching up of old property is a waste of money and the owners are very reluctant to do anything, as they know that the houses will be closed as soon as housing conditions will permit of this step being taken. It is anticipated that as soon as the Council's housing scheme is completed, action must be taken to remedy the bad conditions now prevailing. The making of closing orders is practically useless; two orders made during the year are still in abeyance on account of the want of alternative accommodation."



TABLE 24 — Showing housing inspections and remedy of defects; also building activities and housing shortage in the Rural Districts of Kent.

DISTRICT.				Number of dwelling houses inspected during the year.		Number of dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	Number of representations made to the local authority with a view to the making of closing orders.	Number of closing orders made.	Number of houses made habitable after closing orders.	Number of demolition orders made.	Number of houses demolished.	Number of houses in respect of which notice was issued for remedy of conditions.		Number of houses where remedy was effected.			Housing Schemes.				
				Under H.T.P. Act (Housing Regulations).	Under P.H. or Housing Acts							Under Sec. 28 H.T.P. Act.	Under P.H. Acts.	Under Sec. 28 H.T.P. Act.	Under P.H. Acts.	By an informal notice.	No. of houses included in Council's Scheme for Provision of New Dwellings	No. erected to date.		Approximate shortage, March, 1922.	Should shortage be met by private enterprise within a reasonable period.
Ashford, East ... ..				30	102	2	2	—	—	—	—	—	8	—	8	10	178	72	22	?	No
Ashford, West ... ..				31	98	1	1	—	—	—	—	—	—	8	10	62*	—	48	—	—	—
Blean... ..				14	49	—	—	—	—	—	2	3	—	2	42	60	8	92 (b)	30-40	No	
Bridge ... ..				34	—	12	4	4	4	—	—	4	—	12	—	31	50	—	—	—	—
Bromley ... ..				—	—	—	—	—	—	—	—	—	—	234	56	416	54	154	196	Probably not	
Cranbrook .. ..				38	—	—	—	—	—	—	—	—	—	1	1	96	8	19	(about)	—	—
																(32 being erected)					
Dartford ... ..				227	376	7	3	5	—	—	1	5	435	5	365	44	890	74	70	500	No
Dover ... ..				—	108	1	1	1	3	—	—	—	—	—	—	18	—	19	—	—	—
Eastry ... ..				198	—	—	—	—	—	—	—	49	—	39	—	49	100	—	8	18	Building going on
Elham .. ..				76	36	—	—	—	—	—	—	17	3	17	3	36	27	—	51	10	Yes
																		(about)			
Faversham ... ..				557	—	9	9	9	—	—	2	332	—	316	—	63	—	16	?	?	Yes
Hollingbourn ... ..				659	—	—	—	—	—	—	—	—	—	79	—	—	76	24	69	?	No
Hoo ... ..				7	131	7	7	7	5	2	—	—	124	—	124	—	96	10	4	60	No
Maidstone ... ..				—	122	4	5	5	—	—	3	102	—	—	—	37	130	28	37	50	Doubtful
																			(about)		
Malling ... ..				258	—	—	—	—	—	—	—	—	—	—	—	250	16	28	50-100	—	No
Milton ... ..				358	123	—	—	—	—	—	—	150	52	147	48	193	40	20	72	12	Yes
Romney Marsh ... ..				106	94	3	3	3	2	1	1	8	11	8	11	4	—	—	40	12	Yes
																			(about)		
Sevenoaks ... ..				—	79	—	—	—	—	—	—	—	79	—	—	79	149	105	29	30	No
Sheppey ... ..				84	—	—	—	—	—	—	—	32	—	26	—	—	20	—	13	—	—
Strood ... ..				115	424	2	—	2	—	—	—	32	309	6	309	82	66	—	59	small	No
Tenterden ... ..				2	—	2	—	—	—	—	—	—	1	—	1	—	74	26	27	—	—
Thanet ... ..				22	211	12	9	9	—	—	10	1	141	—	10	131	116	12	43 (b)	100	No
Tonbridge ... ..				731	15	25	—	—	—	—	—	—	15	—	15	455	140	90	25	100	No
1921.	Total in Rural Districts ... ..			2732 +	1968 +	87	44	45	14	3	19	403 +	1180 +	342 +	1131 +	1260 +	3117	607	945	1168 +	—
	Total in Urban Districts ... ..			6303	18960	96	45	45	10	23	58	936	3881	681	2517	5262	7059 +	1918	767	4386 +	—
	Total for County ... ..			9035 +	20928 +	183	89	90	24	26	77	1339 +	5061 +	1023 +	3648 +	6522 +	10176 +	2525	1712	5554 +	—
1920.	Total in Rural Districts ... ..			4206	—	115	39	34	6	4	16	No information.		2112		—	21	350	—	—	—
	Total in Urban Districts ... ..			6872	—	195	77	109	34	96	65	No information.		3729		—	183	284	—	—	—
	Total for County ... ..			11078	—	310	116	143	40	100	81	No information.		5481		—	204	634	—	—	—

\* Scheme abandoned.

(b) Few suitable for working classes.















An interesting innovation has been adopted in *Chatham* to secure more satisfactory co-operation between owner and tenant. On compliance by an owner with a notice to put property in satisfactory condition, a notice is issued to the occupier as follows:—

“Notice is hereby given that the owner has had the house numbered ———, recently repaired, renovated and cleansed. It is the *duty* of the occupier to keep the house and premises generally in a clean and sanitary condition.

“Any occupier who fails or allows a sub-tenant to neglect his or her rooms so that they get into a dirty state, will be prosecuted under the provisions of the Public Health Acts.

Signed,

..... Town Clerk.

..... M.O.H.”

If the tenant neglects his obligations a notice is issued before proceedings are taken.

#### WATER SUPPLY.

The drought of 1921 was responsible for restricted and intermittent supplies in some districts, and the shortage was particularly felt in rural areas where no public supply was available.

The supply at *Sheerness* was improved by the new pumping station and the deep well bore hole, which were put into operation. At *Queenborough* the new storage reservoir of 175,000 gallons capacity and new pumps in duplicate, of 12,000 gallons capacity, will be completed early in 1922. Further headings are being driven in a deep well supplying *Folkestone*, and some extensions of the water mains were carried out in *Milton Regis*. Developments in machinery took place at *Ashford* and *Hythe*. Improvement in distribution was effected in the *Sheppey Rural* area.

Public supplies are under consideration for *Swingfield* and *Hawkinge* (*Elham R.*) and the outlying parts of *Meopham* (*Strood R.*), and negotiations are pending for the purchase of the Company's undertaking at *Whitstable*.

Deficiencies in supply or the need of improved supplies, are reported at *Bredhurst*, *Stockbury*, *Ulcombe*, *Headcorn* and *Chart Sutton* (*Hollingbourn R.*), the *Bluebell Hill* neighbourhood (*Malling R.*), *Cooling* (*Hoo R.*), *Sarre* (*Thanet R.*), part of *Lympne* and the houses along to *Court-at-Street* (*Elham R.*), the *Biggin Hill Estate* (*Bromley R.*), and in parts of the *Milton Rural* area. It is suggested that the *Seabrook* springs might be augmented (*Sandgate*). There have been no developments in the matter of the supply at *Dymchurch* (*Romney Marsh*). The cost of extending water mains is, however, very prohibitive at the present time, and consideration in many cases has been delayed on this account.

Complaints were made of excessive hardness of the *Sittingbourne* water.

Information as to the number of houses not connected with public supply in each sanitary area in the county is given in Tables 25 and 26.

#### DRAINAGE AND SEWAGE.

My annual report for 1919 contained a complete survey of the methods of sewage disposal in vogue in the different districts in Kent, and developments and deficiencies were enumerated in the 1920 report.

Tables 25 and 26 show the numbers of premises in each district containing different types of sanitary conveniences.

The following is a brief outline of improvements and deficiencies reported in 1921 ;—

Main drainage schemes are in hand for part of *Gravesend* and for *Sheerness*, and the sewerage of Stone and Swanscombe (*Dartford R.*) has been commenced. A new installation has been provided in connection with twelve houses at Keston (*Bromley R.*) Additional sewers were laid or are in hand in *Bexley*, *Erith*, *Beltinge* (*Blean R.*), *Aylesford Forstal* (*Hollingbourn R.*) and *Westgate* (*Thanet R.*).

Improvements in disposal works have been carried out or are to be put in hand in *Milton Regis* and *South Willesborough* (*East Ashford R.*) and improvements in the sewer outfall are to be proceeded with immediately at *Folkestone*.

Drainage schemes are required in *Northfleet*, *Rochester*, *Wrotham*, *Sturry* and *Westbere* (*Blean R.*), *Ospringle* and *Teynham* (*Faversham R.*), *Rainham* (*Milton R.*), *Birchington* (*Thanet R.*) *Keston*, *Hayes* and *West Wickham* (*Bromley R.*) and *Harrietsham*, *Ware Street* and *Hollingbourn* (*Hollingbourn R.*). In the majority of instances schemes are in abeyance owing to high cost, but in this connection it is of interest to note Dr. Richmond's observations in connection with the extension of the sewerage system to Stone and Swanscombe (as an unemployment scheme). "The cost has been carefully gone into for each parish, and it is estimated that no increase of the present sanitary rate will be necessary ; in fact there is good reason to suppose that the rate will be diminished, not only for the present but for many years to come, until it is almost entirely extinguished." The question of draining into the West Kent sewers, or of providing separate installation works, has not yet been decided.

In *Ashford* an enlargement of the Whist Meadow outfall sewer is required, *Wateringbury* (*Malling R.*) is stated to need an improved scheme, and the drainage of *Peene*, *Newington* (*Elham R.*) needs improving.



## SCAVENGING.

The following is a brief summary of complaints and improvements :— Additional tractors were provided at *Chatham*, and motor haulage was substituted for horse haulage at *Crayford*. More frequent removal was arranged in *Minster (Thanet R.)* and scavenging was provided for the outlying portion of *Garlinge (Thanet R.)* and further parts of *St. Stephens (Blean R.)*. The source of complaints was remedied at *Eastry (Eastry R.)*, and a complaint at *Kingsdown (Dover R.)* is receiving attention. A new site has been found for the refuse of *Walmer*. Schemes of scavenging are required in the larger parishes of *Hollingbourn Rural*, and weekly instead of fortnightly scavenging is advocated for certain parishes in the *Malling Rural* district. The scavenging of *Birchington (Thanet R.)* is unsatisfactory, and the consideration of new methods of disposal in *Sidcup* has been postponed on account of the cost.

Deposits of London refuse exist in the following districts in the county :— *Bexley*, *Crayford*, *Dartford* (though none was “tipped” during the year), *Milton Regis*, *Northfleet*, *Sittingbourne* and *Wrotham*; and in the Rural districts of *Bromley (Halsted)*, *Dartford (Swanscombe)*, *Faversham (Ongar)*, *Malling (Addington)*, *Milton*, and *Sevenoaks (Otford)*.

These deposits are controlled by bye-laws in *Bexley*, *Milton Regis* and *Sittingbourne Urban*, and *Bromley Rural*.

At the time of writing I am in communication with the medical officers of health of the districts concerned with regard to the measures which should be adopted to deal with the deposits.

## RIVERS POLLUTION.

Full details of river pollutions in Kent were set out in my Annual Report for 1919, some of which were reported remedied in 1920.

The pollution of the *Thames* at *Gravesend* will be remedied by the main drainage scheme for the northern part of the borough; and strong steps are being taken at the present time to clear the *River Cray* and prevent further pollution.

Action was taken in 1921 to reduce the pollution of the *East Malling mill stream*, and there has been a marked improvement in its condition. Pollution of the *Stour* at *Chartham* and *South Willesborough* and of a stream at *Westbrook (Herne Bay)* were also dealt with during the year.

Complaints are made of pollution of a brook at *Elmers End* by effluent from the *Croydon sewage farm*, of the *Stour* by sewage at *Kennington*, and of the *Thames* by the *L.C.C. sewage outfall works at Crossness*.





TABLE 26. Showing Record of Sanitary Work undertaken by **RURAL** District Sanitary Inspectors during the year 1921.

DISTRICT.	Bakehouses.				Dairies, Cowsheds and Milkshops.				Slaughter-houses.				Common Lodging-houses.				Houses Let in Lodgings.				Factories, Workshops and Workplaces.				Nuisances.												No. of premises containing each type of sanitary con. (approx)				No. of premises not connected to public water-supplies.	Disinfection.		Approximate amount of food condemned.				Notices Served.			Legal Proceedings.			
	Number in District.	Number of visits.	Defects found.	Defects remedied.	Number in District.	Number of visits.	Defects found.	Defects remedied.	Number in District.	Number of visits.	Defects found.	Defects remedied.	Number in District.	Number of visits.	Defects found.	Defects remedied.	Number in District.	Number of Visits.	Defects found.	Defects remedied.	Number in District.	Number of Visits.	Defects found.	Defects remedied.	Over-crowding.	Offensive Trades.		Keeping of Animals.		Sanitary accommodation.		Drainage.	Dustbins.	Others.	W.C.'s into drainage system.	W.C.'s into cess-pools.	Earth closets or privy middens.	Pail closets.	Houses, &c.	Articles of Clothing, &c.		Tons.	Cwts.	Qrs.	Lbs.	Statutory.	Informal.	Visits of Inspectors.						
																										Number investigated.	Number abated.	Number investigated.	Number abated.	Number investigated.	Number abated.																		Number investigated.	Number abated.		Number investigated.	Number abated.	Number investigated.
Ashford, East	11	30	2	2	35	59	4	4	19	60	8	7	...	...	...	...	39	69	2	2	12	10	...	...	9	9	6	6	...	36	34	21	20	16	16	1700	400	710	650	1760	52	240	...	1	2	...	8	212	720	...				
Ashford, West	14	45	2	2	28	72	...	...	8	40	4	4	...	...	...	...	46	115	1	1	3	3	...	...	2	2	34	34	...	32	32	...	...	10	10	510	200	430	480	640	68	800	...	1	1	10	3	...	576	...				
Blean	8	15	3	3	90	113	48	47	3	11	2	2	...	...	...	...	28	42	3	3	4	2	...	...	6	6	19	18	10	42	41	...	...	40	40	461	371	27	1082	613	28	...	...	...	...	12	131	954	...					
Bridge	7	96	...	...	28	197	1	1	7	254	...	...	...	...	...	...	24	32	1	1	4	4	...	...	...	...	71	71	31	5	5	...	...	31	17	214	307	234	924	?	129	?	...	...	...	15	10	10	647	...				
Bromley	22	104	21	21	54	192	21	21	18	185	28	28	1	33	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	133	133	201	201	191	191	2964	1630	416	396	354	107	?	...	4	...	21	167	287	406	...				
Cranbrook	16	22	5	5	44	70	5	3	9	21	4	4	...	...	...	...	112	58	...	...	...	...	...	...	...	...	5	5	51	...	11	14	11	...	...	47	47	?	?	?	?	?	11	...	...	...	...	...	38	538	...			
Dartford	33	120	10	10	80	172	8	8	9	33	5	5	...	...	...	...	15	15	3	3	88	117	9	9	13	...	...	...	22	19	34	30	12	74	50	274	205	140	104	2700	3800	52	12	236	205	?	?	?	?	?	11	270	6732	...
Dover	8	16	1	1	44	46	3	3	4	9	...	...	...	...	...	...	27	30	...	...	2	2	1	1	2	2	15	13	8	16	16	...	...	34	32	...	398	142	1229	?	30	?	...	...	...	...	2	21	665	...				
Eastry	19	76	2	2	39	117	2	2	13	52	3	3	...	...	...	...	50	50	...	...	1	1	...	...	...	...	22	19	...	17	17	...	...	...	...	100	505	150	2157	?	46	?	...	4	...	13	...	97	1322	...				
Elham	8	46	2	2	76	167	8	8	8	80	3	3	...	...	...	...	37	43	1	1	...	...	...	...	4	4	6	6	2	9	7	30	30	23	20	297	393	248	604	1044	19	?	...	1	3	...	...	234	860	...				
Faversham	15	32	...	...	45	65	15	15	15	663	9	9	...	...	...	...	86	35	...	...	1	...	...	...	...	...	158	152	78	183	168	...	...	21	21	493	1343	622	1098	2576	140	?	1	...	...	7	...	128	1567	...				
Hollingbourn	10	47	27	27	126	257	98	98	10	71	24	24	...	...	...	...	96	193	35	35	7	7	1	1	24	24	326	326	98	227	222	237	237	...	...	550	1274	1163	240	?	75	?	...	...	...	...	84	34	1788	...				
Hoo...	4	12	4	4	17	46	17	17	3	16	...	...	...	...	...	1	26	...	...	...	...	...	...	...	...	...	17	15	15	11	11	5	5	78	78	34	22	220	450	80	29	?	...	...	...	...	7	81	517	...				
Maidstone	15	19	7	7	48	56	11	11	...	...	...	...	...	...	...	...	106	77	15	15	5	5	1	1	1	1	343	116	...	747	377	...	...	163	71	350	1040	2100	420	...	48	3	...	...	...	...	1	52	1125	...				
Malling	18	50	4	4	58	100	6	6	22	70	6	6	...	...	...	...	113	169	1	1	...	...	...	...	14	14	81	51	...	123	123	...	...	...	?	?	?	?	?	?	?	...	2	...	2	21	245	1137	...					
Milton	8	29	1	1	42	81	4	4	10	327	...	...	...	...	...	...	64	47	2	2	3	3	...	...	2	2	152	169	...	217	203	...	...	321	289	369	119	1657	149	?	121	647	...	1	1	6	2	202	1124	...				
Romney Marsh	2	4	1	1	34	32	4	4	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	11	7	7	3	3	106	94	66	454	720	10	...	...	...	...	...	16	35	245	...				
Sevenoaks	30	38	17	17	160	102	28	28	26	34	7	7	...	...	...	...	104	82	39	39	6	6	...	...	2	2	39	36	1	111	102	32	32	102	101	4895	1260	538	190	?	70	2	...	...	2	9	6	336	1018	...				
Sheppey	...	...	...	...	35	50	...	...	1	3	...	...	...	...	...	...	2	3	...	...	2	2	...	...	...	...	9	9	...	1	1	...	...	32	26	400	30	270	300	about 200	11	?	...	...	3	...	...	44	194	...				
Strood	12	38	3	3	45	133	30	30	7	52	4	4	...	...	...	...	56	109	1	1	2	2	...	...	9	9	102	102	12	170	170	83	14	60	60	444	2400	400	373	?	63	?	...	...	...	11	1	274	2515	...				
Tenterden	7	14	...	...	200	10	...	...	7	5	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	15	...	...	24	24	?	?	?	?	?	7	...	...	...	...	1	18	73	...					
Thanet	8	36	9	9	30	481	25	29	8	145	6	5	...	...	...	...	118	126	9	7	6	2	...	...	46	46	121	94	7	125	116	45	34	289	262	2041	838	?	152	1220	...	1	1	12	1	189	1387	...						
Tonbridge	20	100	6	6	173	525	12	12	23	92	3	3	1	12	...	...	58	151	2	2	2	1	...	...	3	3	12	6	6	15	9	36	36	4	4	2331	1265	283	170	1214	36	235	...	...	1	20	3	310	124	...				





TABLE 27. — In regard to Births and Deaths; Zymotic, Phthisis and Infantile Mortality; and Incidence of Scarlet Fever, Diphtheria and Enteric Fever—showing the amount of the rate above or below the Urban District average for the years 1921, 1920 and the five years' average 1915-1919, in each Urban District in the County of Kent.

DISTRICT.	Birth Rate.			Death Rate.			Zymotic Death Rate.			Phthisis Death Rate.			Infantile Mortality per 1,000 births.			Incidence of Infectious Diseases per 1,000 of the population.								
																Scarlet Fever.			Diphtheria.			Enteric Fever.		
	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.	1921.	1920.	Aver. 1915-1919.
Ashford ... ..	0·3	2·7	0·0	0·3	1·0	0·1	0·42	0·35	0·05	0·05	0·12	0·22	0	6	4	2·60	1·69	0·38	0·03	0·03	1·02	0·14	0·14	0·08
Beckenham ... ..	3·8	4·4	4·4	1·4	1·2	3·2	0·08	0·08	0·31	0·06	0·38	0·32	3	1	11	0·48	0·42	0·60	1·62	0·86	0·83	0·01	0·13	0·06
Bexley ... ..	3·5	1·7	2·0	0·2	1·1	1·5	0·63	0·26	0·04	0·40	0·14	0·18	20	16	1	3·43	4·45	1·62	0·41	0·26	0·38	0·09	0·14	0·15
Broadstairs and St. Peter's...	8·7	2·9	7·1	1·1	2·4	0·9	0·45	0·85	0·36	0·01	0·20	0·05	43	4	16	0·01	0·34	0·80	1·72	5·16	0·46	0·14	0·01	0·09
Bromley (Borough)...	2·2	3·3	3·1	0·5	1·5	2·2	0·25	0·28	0·21	0·18	0·36	0·23	14	6	6	0·80	0·28	0·34	1·10	0·32	0·44	0·15	0·11	0·12
Chatham (Borough) ..	3·2	3·7	3·6	1·3	1·5	2·6	0·61	0·48	0·37	0·50	0·48	0·34	20	10	17	0·61	0·29	0·29	1·59	3·93	0·38	0·01	0·14	0·00
Cheriton ... ..	5·3	1·4	6·5	2·6	1·4	0·7	0·21	0·53	0·24	0·39	0·44	0·32	27	26	20	2·39	1·62	1·46	2·39	1·59	0·08	0·14	0·14	0·10
Chislehurst ... ..	6·7	3·1	3·0	1·8	4·1	3·0	0·29	0·30	0·12	0·03	0·48	0·53	17	22	19	1·14	0·52	0·24	0·91	0·73	0·66	0·99	0·14	0·02
Crayford* ... ..	6·0	2·7	*	1·9	0·4	*	0·87	0·19	*	0·07	0·50	*	19	16	*	3·66	—	*	6·62	—	*	0·14	—	*
Dartford ... ..	1·9	0·9	0·1	0·6	2·8	1·4	0·82	0·29	0·39	0·02	0·03	0·03	10	16	11	6·53	5·92	2·16	6·66	5·89	2·11	0·05	0·21	0·23
Deal (Borough) ... ..	1·1	2·1	1·8	0·3	2·4	2·3	0·46	0·27	0·18	0·41	0·10	0·04	28	28	0	2·58	1·15	0·06	2·51	2·43	1·32	0·05	0·05	0·07
Dover (Borough) ... ..	4·2	1·1	3·3	0·1	0·4	0·8	0·13	0·23	0·15	0·07	0·31	0·08	8	15	5	0·55	0·21	0·28	0·03	0·68	0·30	0·24	0·04	0·15
Erith... ..	2·8	1·5	2·4	1·0	1·7	3·3	0·28	0·05	0·08	0·18	0·01	0·16	2	1	12	2·00	1·11	1·55	0·32	0·39	0·16	0·07	0·04	0·07
Faversham (Borough) ...	0·6	2·1	1·5	2·0	0·6	0·8	0·02	0·34	0·11	0·29	0·10	0·02	5	22	1	2·12	0·37	0·14	4·02	0·85	0·42	0·04	0·42	0·01
Folkestone (Borough) ...	1·0	2·4	0·6	0·0	0·9	0·2	0·42	0·01	0·01	0·14	0·02	0·13	17	7	2	2·62	0·62	0·57	1·73	1·24	0·46	0·11	0·02	0·10
Gillingham (Borough) ...	0·5	1·9	3·2	0·5	0·0	0·9	0·08	0·16	0·10	0·01	0·02	0·10	3	4	3	1·17	0·19	1·16	0·71	0·04	0·61	0·09	0·11	0·08
Gravesend (Borough) ...	2·2	2·0	1·2	1·8	0·3	0·9	0·08	0·16	0·29	0·30	0·00	0·27	8	4	3	1·31	2·13	0·39	1·06	0·57	0·36	0·09	0·09	0·01
Herne Bay ... ..	6·4	4·7	3·1	0·4	0·6	2·1	0·13	0·53	0·19	0·22	0·11	0·06	34	24	7	0·49	0·94	0·54	0·17	1·43	0·69	0·14	0·10	0·08
Hythe (Borough) ... ..	1·9	2·7	1·8	0·1	2·2	0·5	0·35	0·25	0·37	0·28	0·27	0·13	44	3	11	0·56	2·63	0·45	2·18	1·07	0·25	0·00	0·14	0·16
Lydd (Borough) ... ..	5·4	4·9	0·7	4·4	1·6	1·5	0·18	0·53	0·37	0·37	0·16	0·31	6	27	19	3·61	3·05	0·11	2·15	2·61	0·99	0·14	0·14	0·19
Maidstone (Borough) ...	1·2	0·7	0·3	0·3	0·2	2·1	0·15	0·21	0·08	0·13	0·01	0·53	1	4	2	2·39	1·16	0·97	0·83	1·53	0·68	0·03	0·05	0·37
Margate (Borough) ... ..	3·6	0·4	5·2	0·5	1·4	0·2	0·26	0·03	0·16	0·48	0·29	0·05	3	8	3	0·88	0·35	0·82	0·32	0·62	0·69	0·06	0·05	0·00
Milton Regis ... ..	3·1	1·3	1·0	1·1	1·1	0·2	0·36	0·11	0·26	0·11	0·14	0·17	9	1	15	0·98	1·20	0·95	0·61	0·69	1·26	0·14	0·00	0·07
New Romney (Borough) ...	8·2	2·0	0·8	1·6	3·7	2·6	0·63	0·53	0·03	0·15	0·13	0·63	11	29	22	2·72	3·05	1·30	1·93	2·61	0·30	0·14	0·14	0·02
Northfleet ... ..	5·1	5·2	4·0	1·5	2·5	1·3	0·38	0·52	0·96	0·19	0·15	0·25	14	2	4	3·24	1·29	0·28	0·15	2·61	1·29	0·05	0·06	0·19
Penge ... ..	1·2	3·4	1·3	0·2	2·6	0·6	0·02	0·01	0·01	0·17	0·28	0·06	3	9	14	0·71	0·23	0·30	1·08	0·55	0·60	0·09	0·06	0·13
Queenborough (Borough) ...	5·2	5·1	7·5	2·9	2·2	3·0	0·02	0·91	0·61	0·49	0·32	0·50	111	28	10	1·49	0·75	1·3·68	0·99	1·41	3·79	0·14	0·15	0·14
Ramsgate (Borough) ... ..	1·2	3·9	1·8	1·8	2·3	3·2	0·51	0·22	0·04	0·18	0·10	0·51	16	10	10	4·22	0·09	0·95	1·66	1·41	0·21	0·07	0·03	0·08
Rochester (City) ... ..	2·0	0·4	1·0	0·0	0·1	0·5	0·23	0·05	0·00	0·08	0·18	0·00	11	7	1	2·40	1·25	0·40	1·82	0·99	0·17	0·0	0·05	0·00
Sandgate ... ..	2·3	0·5	1·2	2·2	0·1	1·8	0·63	0·03	0·12	0·04	0·48	0·40	67	46	37	0·31	6·45	1·11	0·25	1·11	1·20	0·14	0·14	0·19
Sandwich (Borough) ... ..	0·2	0·7	2·1	4·7	1·2	2·7	0·31	0·08	0·20	0·50	0·09	0·19	12	17	9	3·10	1·83	1·77	2·60	2·61	1·46	0·18	0·14	0·12
Sevenoaks ... ..	1·8	4·8	5·4	0·6	0·8	1·3	0·05	0·32	0·27	0·25	0·32	0·00	17	29	20	2·92	2·44	1·26	2·60	1·43	1·24	0·14	0·03	0·12
Sheerness ... ..	0·4	3·3	3·9	1·0	0·8	1·2	0·02	0·01	0·44	0·04	0·12	0·00	1	5	11	5·39	0·10	0·40	1·93	2·01	0·87	0·01	0·24	0·63
Sidcup ... ..	1·8	4·7	3·0	0·4	1·0	3·0	0·40	0·07	0·20	0·25	0·48	0·39	19	20	14	3·68	1·06	0·94	0·21	2·98	3·49	0·14	0·14	0·19
Sittingbourne ... ..	5·8	3·1	2·8	0·1	0·8	0·1	0·31	0·08	0·01	0·03	0·27	0·04	7	3	3	2·46	0·18	0·37	0·47	1·51	2·32	0·08	0·20	0·04
Southborough ... ..	3·0	1·1	2·3	1·4	2·1	2·9	0·19	0·38	0·44	0·05	0·12	0·03	17	24	3	3·70	0·36	1·37	0·01	1·62	0·69	0·14	0·14	0·12
Tenterden (Borough) ... ..	4·0	7·1	4·7	0·8	2·8	1·6	0·63	0·25	0·45	0·52	0·00	0·02	48	28	21	3·16	2·77	0·03	2·60	2·33	0·68	0·16	0·14	0·19
Tonbridge ... ..	0·6	1·1	1·3	1·8	0·0	0·0	0·44	0·20	0·34	0·19	0·28	0·19	21	4	3	2·73	0·57	0·38	1·27	1·37	0·57	0·14	0·07	0·06
Tunbridge Wells (Borough)	5·2	5·8	5·3	1·7	1·2	1·2	0·45	0·30	0·34	0·06	0·18	0·15	18	2	1	1·02	0·06	1·12	1·66	0·82	0·23	0·05	0·02	0·09
Walmer ... ..	4·8	5·7	1·8	1·6	0·1	0·4	0·05	0·28	0·38	0·24	0·48	0·13	8	23	10	3·15	2·80	0·42	1·92	2·61	1·51	0·09	0·14	0·03
Whitstable ... ..	4·7	2·6	1·5	3·1	1·8	1·1	0·63	0·42	0·16	0·05	0·37	0·01	31	20	20	1·65	1·20	0·36	2·38	2·06	0·75	0·14	0·03	0·14
Wrotham ... ..	1·0	2·3	1·4	1·0	2·7	1·3	0·39	0·28	0·61	0·10	0·88	0·23	12	15	7	1·92	3·05	1·51	2·36	2·61	0·63	0·14	0·14	0·08
Average rates of the 42 Urban Districts ... ..	20·2	24·2	18·6	11·6	11·4	14·4	0·63	0·53	0·70	0·82	0·83	1·05	67	61	81	4·06	3·05	1·91	2·60	2·61	1·78	0·14	0·14	0·19

The figures printed in red represent the balance of the rate above the rate for the aggregate Urban Districts, the figures in black the balance of the rate below the average.

(The actual rate is obtained by adding or deducting the figures shewn, to or from the average rates given in the last line.)

\* Crayford was constituted an Urban District in October, 1920.





TABLE 28.—In regard to Births and Deaths; Zymotic, Phthisis and Infantile Mortality; and Incidence of Scarlet Fever, Diphtheria and Enteric Fever—showing the amount of the rate above or below the Rural District average for the years 1921, 1920 and the five years' average 1915–1919, in each Rural District in the County of Kent.

DISTRICT.	Birth Rate.			Death Rate.			Zymotic Death Rate.			Phthisis Death Rate.			Infantile Mortality per 1,000 births.			Incidence of Infectious Diseases per 1,000 of the population.								
	1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.	Scarlet Fever.			Diphtheria.			Enteric Fever.		
																1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.	1921.	1920.	Aver. 1915–1919.
Ashford, East ... ..	0·2	1·2	0·1	2·0	1·0	0·4	0·15	0·02	0·01	0·74	0·21	0·28	7	2	2	1·41	0·77	0·51	0·88	0·64	0·68	0·15	0·11	0·09
Ashford, West ... ..	1·3	4·5	2·7	0·1	1·8	0·9	0·22	0·01	0·13	0·24	0·07	0·07	24	18	5	0·99	0·23	0·43	0·73	0·77	0·30	0·12	0·16	0·02
Blean... ..	2·5	4·6	1·8	0·9	0·9	0·6	0·36	0·02	0·19	0·04	0·05	0·38	24	7	20	1·17	0·98	0·81	1·09	1·05	0·06	0·22	0·11	0·08
Bridge ... ..	0·1	2·0	1·0	0·0	0·0	0·6	0·36	0·13	0·19	0·08	0·31	0·09	4	8	4	0·06	0·50	0·50	2·51	0·33	0·29	0·06	0·11	0·15
Bromley ... ..	1·8	0·5	0·1	0·8	0·9	0·6	0·04	0·25	0·05	0·06	0·40	0·11	5	4	14	0·57	0·77	0·15	0·37	1·74	0·79	0·11	0·03	0·05
Cranbrook ... ..	0·5	0·5	2·5	0·7	2·5	0·6	0·28	0·29	0·22	0·05	0·30	0·18	2	2	5	0·41	0·46	0·32	1·83	1·39	0·13	0·07	0·02	0·07
Dartford ... ..	0·2	2·5	3·2	1·5	1·9	0·8	0·09	0·27	0·22	0·09	0·07	0·04	3	3	6	2·42	2·30	1·11	1·66	1·74	1·23	0·04	0·08	0·02
Dover ... ..	3·7	2·2	1·8	0·8	1·8	0·4	0·11	0·19	0·07	0·22	0·18	0·06	37	36	26	1·29	1·78	0·55	0·24	1·00	1·03	0·15	0·11	0·01
Eastry ... ..	1·2	0·4	0·1	0·4	1·5	0·6	0·36	0·05	0·06	0·06	0·14	0·16	35	15	3	1·64	0·63	0·26	2·15	1·22	0·78	0·07	0·03	0·06
Elham ... ..	5·1	3·6	1·4	0·4	3·2	2·1	0·23	0·17	0·33	0·34	0·24	0·02	6	20	10	0·61	0·54	0·10	1·15	0·48	1·38	0·15	0·11	0·00
Faversham ... ..	2·4	0·7	3·1	0·1	1·4	1·3	0·14	0·24	0·04	0·04	0·02	0·02	15	8	4	3·67	1·14	0·51	0·44	1·37	1·20	0·14	0·25	0·02
Hollingbourn ... ..	1·6	2·3	2·2	0·2	0·7	1·0	0·05	0·22	0·23	0·12	0·15	0·11	29	1	4	0·41	0·89	0·04	0·16	0·17	0·56	0·01	0·14	0·07
Hoo .. ... ..	2·8	7·5	5·0	1·4	2·9	0·4	1·42	0·14	0·15	0·19	0·73	0·15	33	8	14	1·13	1·10	0·38	3·69	1·00	0·61	0·30	0·11	0·04
Maidstone ... ..	0·2	1·0	0·8	1·7	1·7	1·5	0·06	0·06	0·01	0·02	0·14	0·30	14	3	2	1·13	0·70	0·04	0·46	0·62	0·00	0·03	0·09	0·04
Malling ... ..	4·3	5·0	0·3	1·3	0·1	0·7	0·08	0·08	0·08	0·17	0·09	0·13	2	4	2	0·39	0·51	0·13	1·31	0·48	0·16	0·07	0·06	0·08
Milton ... ..	1·4	2·3	1·1	1·0	0·6	0·2	0·07	0·01	0·29	0·30	0·39	0·09	11	1	11	0·30	0·76	0·84	3·51	1·62	0·81	0·07	0·11	0·05
Romney Marsh .. ...	1·2	1·7	1·1	3·1	1·5	1·0	0·36	0·39	0·32	0·14	0·02	0·19	5	17	8	1·35	1·32	0·50	2·30	1·35	0·86	0·15	0·11	0·11
Sevenoaks ... ..	0·6	3·6	2·9	0·1	0·8	1·0	0·18	0·18	0·15	0·12	0·23	0·05	14	8	9	1·46	1·57	0·57	0·63	0·43	0·69	0·15	0·02	0·08
Sheppey ... ..	0·7	2·6	4·7	0·6	3·0	3·2	0·11	0·39	0·19	0·36	0·47	0·45	52	25	6	1·32	1·81	0·27	1·83	1·21	0·10	0·15	0·11	0·24
Strood ... ..	2·6	1·5	2·2	0·3	0·8	0·3	0·44	0·14	0·30	0·23	0·23	0·07	4	3	3	0·30	0·09	0·05	1·19	0·03	0·67	0·83	0·04	0·00
Tenterden ... ..	1·2	4·7	1·6	2·6	0·1	2·4	0·01	0·03	0·28	0·07	0·01	0·06	34	18	11	0·97	1·53	1·58	2·30	1·73	0·86	0·15	0·11	0·07
Thanet ... ..	2·7	0·9	2·8	1·8	0·1	0·3	0·27	0·07	0·13	0·11	0·42	0·30	5	18	11	0·46	0·92	0·51	3·71	0·37	1·11	0·15	0·42	0·03
Tonbridge ... ..	0·7	3·8	2·3	0·5	0·1	0·5	0·28	0·05	0·23	0·05	0·23	0·17	7	4	10	1·12	0·53	0·53	1·60	0·46	0·73	0·09	0·11	0·02
Average rates of the 23 Rural Districts ... ..	19·5	25·2	18·0	11·1	11·2	13·8	0·36	0·39	0·55	0·81	0·73	0·98	60	53	72	2·02	2·07	1·66	2·30	1·73	1·66	0·15	0·11	0·11

The figures printed in red represent the balance of the rate above the rate for the aggregate Rural Districts, the figures in black the balance of the rate below the average.

(The actual rate is obtained by adding or deducting the figures shewn, to or from the average rates given in the last line).





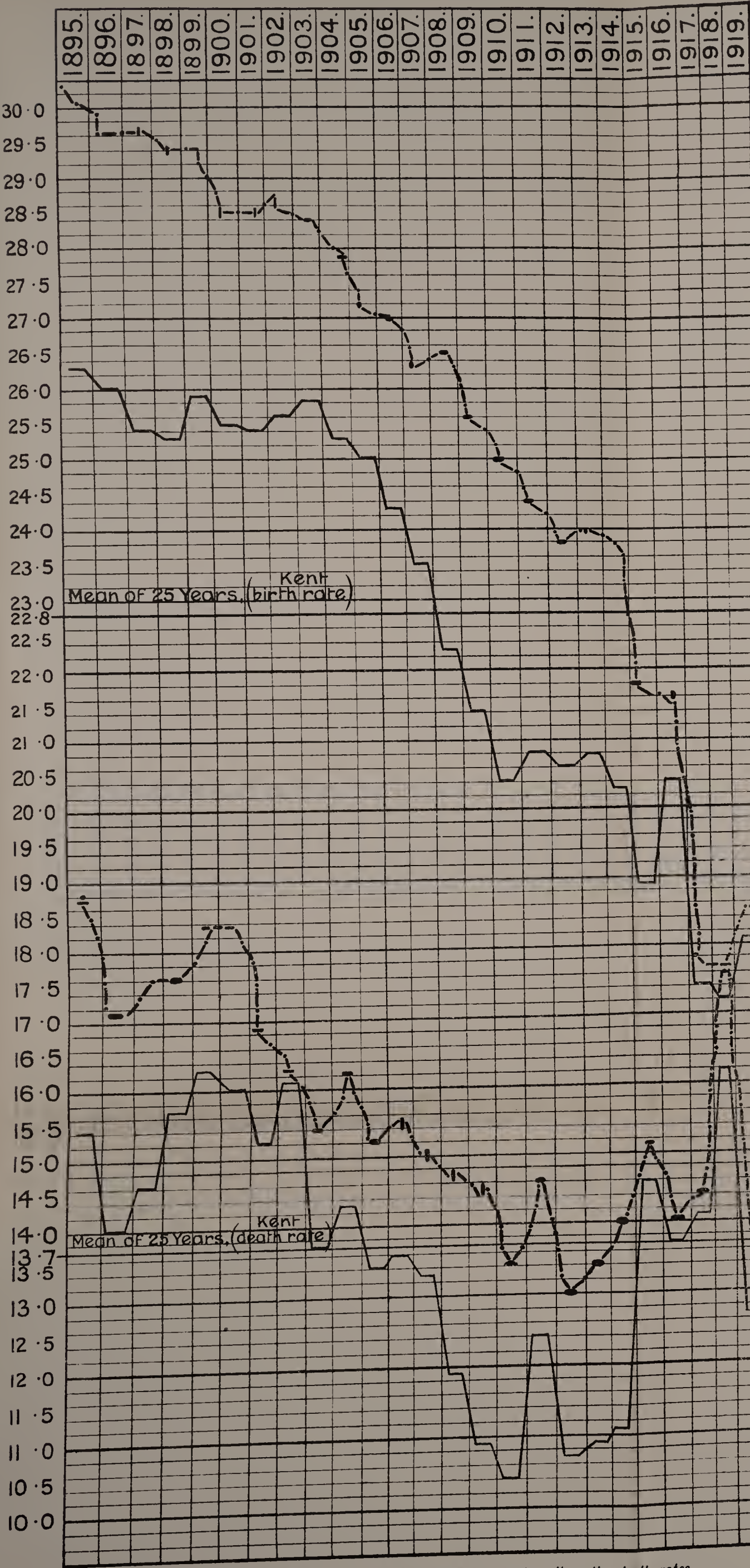
TABLE 29.—SHOWING CAUSES OF DEATH IN THE **URBAN DISTRICTS** OF THE COUNTY OF KENT  
DURING THE YEAR 1921.

District.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Eucephalitis lethargica.	Meningococcal Meningitis.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Diabetes.	Cerebral Hemorrhage, etc.	Heart Disease.	Arterio-sclerosis.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Ulcer of Stomach or Duodenum.	Diarrhea, &c. (Under 2 years).	Appendicitis and Typhilitis.	Cirrhosis of Liver.	Acute and Chronic Nephritis.	Puerperal Sepsis.	Other accidents and diseases of pregnancy and parturition.	Congenital debility and malformation, premature birth.	Suicide.	Other deaths from violence.	Other defined Diseases.	Causes ill-defined or unknown.	Special Causes (included above).				
																																	Polio-myelitis.	Polio-encephalitis.	Anthrax.		
Ashford ... ..	...	...	...	...	...	1	6	1	..	11	3	15	1	1	16	21	4	13	11	2	...	2	...	...	...	1	8	1	...	...	...	...	...	...	...	...	...
Beckenham ... ..	...	...	...	1	2	4	13	1	1	25	2	43	..	7	32	35	15	22	15	3	1	11	4	2	6	1	12	5	10	41	2	...	...	...	...	...	
Bexley ... ..	...	...	...	1	3	3	6	...	...	9	4	34	2	...	10	27	6	7	15	2	2	20	1	...	6	...	15	1	9	61	1	...	...	...	...	...	
Broadstairs and St. Peter's ... ..	...	...	...	...	...	1	8	...	...	9	1	20	...	1	8	17	2	...	7	1	...	1	...	2	4	...	...	1	1	2	29	1	...	...	...	...	
Bromley (Borough)...	...	...	...	...	4	1	13	6	2	22	5	47	2	3	25	53	9	39	37	5	...	8	3	1	5	1	1	4	6	74	.	...	...	...	...	...	
Chatham (Borough)...	2	...	...	2	14	16	5	3	1	57	14	45	...	4	22	58	14	32	20	10	7	18	1	4	17	2	5	34	6	10	112	6	...	...	...	...	
Cheriton ... ..	...	...	...	...	...	...	...	...	...	3	3	2	1	...	2	11	...	1	...	...	...	2	...	...	...	...	5	1	1	8	1	...	...	...	...	...	
Chislehurst ... ..	1	...	...	...	1	...	3	...	..	7	...	5	...	2	9	9	5	6	5	5	2	1	...	...	4	...	2	2	1	4	15	...	...	...	...	...	
Crayford ... ..	...	...	1	1	1	12	...	...	...	9	1	13	...	1	2	13	1	5	6	2	...	3	...	1	3	...	18	2	3	18	...	...	...	...	...	...	
Dartford ... ..	...	...	...	5	2	28	3	...	...	22	7	27	1	2	17	27	2	13	22	5	2	3	1	...	7	...	18	2	7	59	...	...	...	...	...	...	
Deal (Borough) ...	...	...	...	...	...	...	2	...	...	5	2	18	...	4	12	14	1	2	5	4	...	2	1	...	1	...	18	7	2	44	1	...	...	...	...	...	
Dover (Borough) ...	1	1	1	...	6	7	...	...	...	30	7	56	1	6	47	45	12	28	24	4	2	10	...	3	6	...	21	6	17	108	7	...	...	...	...	...	
Erith ... ..	1	...	...	4	1	4	4	1	...	32	7	38	2	5	14	42	2	23	26	4	3	19	1	3	14	2	17	2	7	58	1	...	...	...	...	...	
Faversham (Borough)	...	...	...	1	...	2	6	...	...	12	1	25	2	...	9	17	2	9	4	...	...	4	...	1	3	...	8	2	...	36	3	...	...	...	...	...	
Folkestone (Borough)	1	...	...	...	...	...	3	...	...	32	12	46	...	5	38	49	8	25	20	5	3	6	2	2	11	...	14	4	14	83	1	...	...	...	...	...	
Gillingham (Borough)	...	...	...	9	14	9	...	1	45	12	69	1	5	32	57	14	47	36	5	4	11	5	2	17	1	3	35	6	8	130	2	...	...	...	...	...	
Gravesend (Borough)	...	...	1	1	2	4	9	1	...	35	5	47	1	6	22	43	3	44	30	3	4	9	5	1	10	...	3	20	5	12	91	...	...	...	...	...	
Herne Bay ... ..	...	...	...	...	...	...	5	...	1	6	3	15	...	2	7	16	7	3	2	1	...	5	...	...	...	...	8	1	4	24	1	...	...	...	...	...	
Hythe (Borough) ...	...	...	...	...	...	...	2	...	...	4	...	10	...	3	3	11	6	3	4	1	...	2	3	...	1	...	6	1	2	21	...	...	...	...	...	...	
Lydd (Borough) ...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	2	1	1	...	...	...	1	1	...	1	...	1	1	...	4	...	...	...	...	...	...	
Maidstone (Borough)	...	...	...	...	1	7	10	...	...	26	7	60	...	4	35	63	14	29	33	5	...	10	1	4	13	1	22	5	15	80	2	...	...	...	...	...	
Margate (Borough)...	...	...	...	1	..	...	5	...	...	36	11	35	3	2	16	47	11	10	16	5	3	9	1	2	7	...	11	...	4	67	1	...	...	...	...	...	
Milton Regis ... ..	...	...	...	...	...	...	4	...	.	7	...	7	...	1	8	9	...	2	4	1	1	2	1	1	2	...	5	1	1	22	...	...	...	...	...		
New Romney (Borough)...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	..	1	1	...	2	...	...	...	...	...	3	...	...	1	...	...	3	1	...	...	...	...	
Northfleet ... ..	1	...	...	...	3	8	2	...	...	10	5	20	1	...	7	11	...	18	15	3	1	4	...	2	5	...	6	2	6	28	1	...	...	...	...	...	
Penge ... ..	1	...	1	..	1	1	6	...	...	17	7	26	..	3	29	28	16	20	23	4	...	13	1	3	10	...	15	5	11	68	1	...	...	...	...	...	
Queenborough (Borough) ...	...	...	...	...	1	...	...	...	...	1	...	4	...	...	1	...	1	2	1	...	...	1	...	...	1	...	8	..	2	4	..	...	...	...	...	...	
Ramsgate (Borough)...	...	...	...	...	1	13	3	...	...	30	13	44	1	4	27	40	7	18	29	8	...	20	1	2	12	...	15	5	8	97	3	...	...	...	...	...	
Rochester (City) ...	...	...	...	1	4	17	11	...	...	23	5	42	...	5	12	41	18	38	21	5	5	5	2	4	8	...	18	4	7	67	2	...	...	...	...	...	
Sandgate ... ..	...	...	...	...	...	...	...	...	...	2	..	4	...	...	2	2	...	...	...	1	...	...	...	...	2	...	...	1	1	5	...	...	...	...	...	...	
Sandwich (Borough)...	...	...	...	...	...	...	1	...	...	1	1	6	...	...	3	7	1	2	3	2	1	1	1	...	3	...	1	...	...	16	1	...	...	...	...		
Sevenoaks ... ..	1	...	...	...	...	...	1	1	...	5	4	12	1	1	10	11	10	3	6	1	...	5	1	1	1	...	2	...	3	25	1	...	...	...	...	...	
Sheerness ... ..	1	...	...	...	1	2	4	...	...	16	3	20	...	1	17	13	8	12	12	1	2	6	1	1	1	...	4	...	3	31	1	...	...	...	...	...	
Sidecup ... ..	...	...	...	...	...	1	2	1	1	5	3	10	5	...	13	9	3	8	13	1	...	1	3	...	4	...	4	...	1	19	...	...	...	...	...	1	
Sittingbourne ... ..	1	...	...	...	...	1	2	...	...	8	2	16	...	1	4	18	1	3	11	...	...	1	...	...	1	...	9	...	2	26	...	...	...	...	...	...	
Southborough ... ..	...	...	...	...	1	...	3	...	...	6	...	9	...	1	9	22	1	7	2	...	...	2	1	...	2	...	5	2	2	15	..	...	...	...	...	...	
Tenterden (Borough)	...	...	...	...	...	...	...	...	...	1	1	6	...	1	6	7	..	..	3	...	...	...	1	...	...	...	...	...	...	10	...	...	...	...	...	...	
Tonbridge ... ..	...	...	...	...	2	...	1	1	...	10	3	19	1	2	10	24	5	7	13	3	...	1	...	...	4	...	6	2	5	36	...	1	..	...	...	...	
Tunbridge Wells (Borough)...	...	...	...	...	3	1	11	1	...	26	6	74	...	6	32	91	13	23	19	7	2	2	6	2	14	1	3	13	1	11	86	1	...	...	...	...	
Walmer ... ..	1	..	...	...	...	...	...	1	...	3	2	8	...	...	5	4	2	6	2	1	...	2	...	3	...	1	3	2	...	12	...	...	...	...	...		
Whitstable ... ..	...	...	...	...	...	...	9	...	...	7	7	21	...	..	11	22	6	7	5	1	1	...	...	1	1	...	3	1	1	30	...	...	...	...	...	...	
Wrotham ... ..	...	...	...	...	1	...	3	...	...	3	...	8	...	...	2	9	1	2	3	1	...	...	1	...	4	...	4	...	3	8	...	...	...	...	...	...	
Total Urban ... ..	12	1	4	19	58	147	182	17	8	620	170	1029	26	89	586	1046	233	545	525	112	46	223	50	48	227	10	40	423	88	207	1819	42	1	...	1		





Diagram showing the Birth Rates and Death Rates in the County of Kent, for the years 1895-1919, inclusive, compared with similar rates for England and Wales.



The two top lines show the birth-rates and the two bottom lines the death rates.  
Kent shown thus ————— England and Wales shown thus — · — · —  
The above records are for the Administrative County, from and including 1908; previous to that year records for the Registration County (shown) only are available.

